



BETTER HOMES

BETTER BUSINESS

BETTER HOMES MEAN BETTER BUSINESS. THE AMERICAN BUILDER ENDORSES A VIGOROUS HOME BUILDING AND REPAIR DRIVE IN EVERY COMMUNITY TO CREATE THE DESIRE FOR BETTER HOMES. BUILDERS, DEALERS, ARCHITECTS, REAL ESTATE MEN AND THE LOCAL DEPARTMENT STORES AND NEWSPAPERS SHOULD CO-OPERATE TO POPULARIZE BETTER HOMES.

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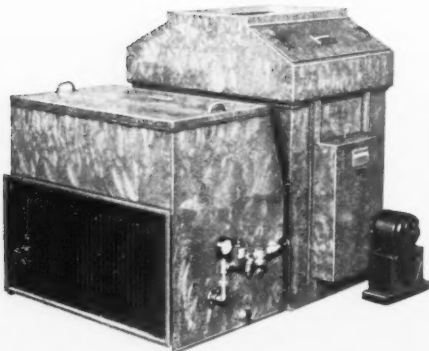
The Mueller-Milwaukee Furnace Plan, cooperating with the FHA, cuts down sales resistance on modernizing jobs—the customer has 1 to 3 years to pay, on easy terms, without excessive interest charges. This, together with our reputation as leaders in heating and air conditioning development, is a big help in selling new jobs.

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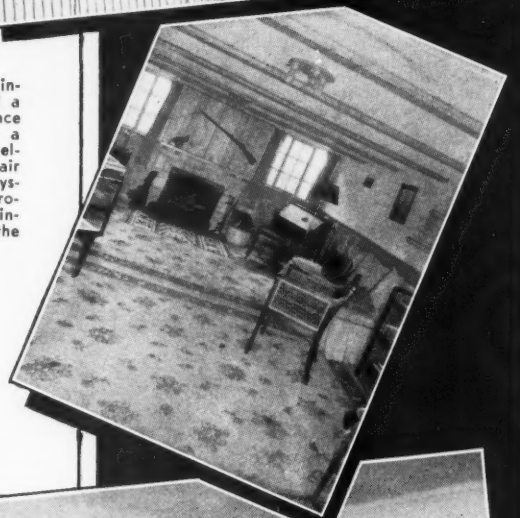
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In the above installation the air is conditioned by this Climator II unit which includes matched blower, washer, and filter. We make a full line of Climators with a wide range of capacities, with and without refrigeration.



Exterior and interior views of a modern residence equipped with a complete Mueller-Climator air conditioning system which provides ideal indoor climate the year 'round.



MUELLER—MILWAUKEE

The Problem of the EMPLOYED

SOLUTION of the problem of *unemployment* has been so long delayed because so little attention has been given to the *employed*.

There are about 10,000,000 *unemployed* in this country. There are about 40,000,000 who are "gainfully *employed*." The *employed* deserve more attention for at least three important reasons. First, there are four times as many of them. Second, their work and incomes are not only supporting themselves and their natural dependents, but also all those that are on relief. Third, and most important, *the employed must be depended upon to provide employment for the unemployed*.

Only persons already deriving incomes from their own property or work can provide either relief or employment for others.

THE country resounds with clamor about what the *government* should do for the unemployed now and in future. All the government does or can do is to take part of the incomes of those deriving incomes from their business and work, and transfer it to others. The more the government takes from those that are usefully employed, the less it leaves them to spend themselves in directly and indirectly employing the unemployed.

The home-building industry affords as good an illustration as any. There are still hundreds of thousands of men unemployed in this industry. They cannot re-employ themselves. Only a very small part of them can be given employment on government housing projects. Practically all of them must get re-employment from the 40,000,000 persons in the country who now have incomes from private business.

The problem of re-employment is, then, two-fold. First, give the 40,000,000 now employed increased incentive and desire to buy, by making satisfactory prices and adopting effective sales methods. Second, increase their confidence in the future of business—the confidence of now employed workers that they will be able to keep their jobs, and of business men that they will be able to make profits.

THE 40,000,000 now "gainfully employed" in agriculture and business have enough income and capital now to spend and invest much more than they are spending and investing now. By increasing their spending and investing they would rapidly re-employ the unemployed and terminate the depression.

They are increasing their spending and investing now. They will increase them much faster when government, business and labor leaders recognize the important fact that the 40,000,000 who are now gainfully employed afford the market in which sales must be vastly increased in order to revive private business and re-employ in private business those now unemployed.

Samuel O. Drumm,

CHAIRMAN,
AMERICAN BUILDER PUBLISHING CORPORATION
SIMMONS-BOARDMAN PUBLISHING CORPORATION

WHEN IT'S CONCRETE




And You're SNOWED UNDER!

CONSTRUCTION men today seldom let anything stop a job's progress. Zero weather, ice, snow, sleet, freezing and thawing—these used to mean an end to concrete placing. But today you mix, place and cure concrete under any weather conditions—and it is *good* concrete.

With the sound methods and job kinks that today's construction men know and use, you do not often need advice. But when there are special

problems—when some particular concrete question nearly has you “snowed under”—then, if any of the information we have collected on cement and concrete will help you figure out the answer, we'd like to be called upon to furnish it. Write, phone or wire any of the offices listed below and you will be given cheerful and prompt service. No charge, of course, it's a regular part of every barrel of Universal Atlas cement you buy to make good concrete.

UNIVERSAL ATLAS CEMENT CO.

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AMERICAN BUILDER AND BUILDING AGE

Restore Confidence in Builders

THE confidence of the public in many lines of business has been shaken by the depression. Residential builders and contractors have suffered along with the rest. No sensible man can ignore the fact that the public needs to be informed and re-convinced of the reliability and integrity of the men who build homes.

One unhappy aspect of this matter is the fact that many architects, in promoting their own services, seem to feel it necessary to reflect unjustly and unfairly on the honesty of the average builder. They seem able to sell their services only on the basis of "protection against the contractor"—implying that the contractor is crooked and that no one but an architect can protect the customer against him.

This publication strongly condemns such methods and maintains that such unprofessional conduct is not only unfair to a most important division of the industry, but also is destructive of market opportunities for all divisions. Certainly no good can be done by slandering the responsible and honest men of the home building industry. We find fault also with the way some contractors speak of their competitors. Some of the most bitter and unfair criticisms of home builders are voiced by their competitors in a way that is unsportsmanlike and damaging to the entire industry.

Contractor Worth Appreciated

The editor of the AMERICAN BUILDER was recently asked to write a booklet on "How to Select a Good Contractor." Choosing a contractor, it was stated, is much like choosing a doctor. You pick a doctor who has good standing in the community, who has had proper training, and who has a record of successful practice. In spite of gossip to the contrary, it is found that:

—Building contractors and building craftsmen are *creative*; they take real interest in doing a constructive job.

—They are *practical*; since they know from experience the responsibility of translating sketches and words into actual solid structures.

—They are *loyal* to methods and materials that have stood the test of time, yet are open to proof in respect to new things in building.

—They are *dependable*, proud of the tradition that a builder's word is as good as his bond.

To the above four traits must be added the feature that amalgamates them all into a useful service—the residential building contractor of today must render a

complete home building service. Let us develop this thought further:

The responsible residential contractor today should be able to take care of the needs of a customer in every respect without making it necessary for him to go from place to place and person to person.

When a job comes to a contractor through an architect, it is only right and just that this architect should exercise supervision and earn his fee. But in those jobs where the contractor develops and originates the work himself—which are, of course, far in the majority in the residential field—the contractor should be able to render a complete service. He should employ the best architectural talent available—but the architectural arrangement, like all other necessary work in connection with the job, should be kept under the single centralized contract and responsibility of the residential contractor.

Better Builders Are Organizing

To say that most contractors are dishonest, and that therefore the architect should be employed independently, by the home owner to protect him against the contractor, is nonsense. Competent contractors, like competent architects, know their jobs. Their business is founded on the good will they bear in the community, and they cannot be in business year in and year out without giving honest value. There are, in proportion to their number, just as many incompetent and dishonest architects as there are incompetent and dishonest contractors, and we know no way of legislating either of these classes out of existence.

The confidence of the public in the men who design and build homes can be restored by the constructive work of responsible, residential contractors themselves. They can organize in local professional associations. They can set up standards of conduct such as outlined last month in the AMERICAN BUILDER, and they can advertise to the public in a way that will re-establish confidence and belief in the honesty and integrity of builders. This can be done and should be done without delay.

* * *

MORTGAGE BUYERS; FHA RULES

THE man or woman who in the past liked to invest in good first mortgages should be brought into the FHA plan by amending the present rules. These investors are ready today to furnish much of the money needed for the nation's home building program under the Hous-

ing Administration's insurance and regulations. This source of home building money normally amounts to about six billion dollars of the total of twenty-one billion of home mortgages outstanding. The present rules established by the Federal Housing Administrator under the National Housing Act make it impossible for private investors to buy the FHA insured mortgages. These rules should be changed, so that resources from private investors and trust funds can come forward to relieve the banks that are now signed up as FHA mortgagees, by absorbing the loans made and thereby restoring liquidity to these loaning banks.

Federal Housing Administrator Moffett has worked hard to organize National Mortgage Associations under Title Three of the Housing Act which, according to the plan, were to buy the insured home mortgages from the loaning companies and issue their own debentures against them, for sale to the investing public. However, none of these mortgage associations has yet been organized, whereas 3900 banks are set to go and have already accumulated several thousand bona fide applications for home building loans. These banks have twenty-five billion dollars of assets but they can't go far, loaning their funds on 20-year mortgages, until they are assured of a market for these investments.

Here is where the thrifty local individual comes in. He always did like to put his money into good first mortgages. The assurance provided both by the insurance feature and the careful appraisal of FHA home mortgages will strongly appeal to him. The FHA regulations ought to be so amended that the approved mortgagee banks and other loaning institutions can pass along their paper to such investors, retaining, of course, the monthly "servicing" of the mortgages; that is, collecting the interest, taxes, etc., and for this a service fee is provided in the FHA schedule.

The established interest rate of 5 per cent for new homes and 5½ per cent for old home loans will look pretty good in these days of low earning power of money, especially backed as these FHA mortgages are with Uncle Sam's mutual insurance guarantee. It will be a service both to the private investor and to the home building public to broaden the FHA rules to permit these gilt edged first mortgages to be absorbed by the investing public through the FHA authorized mortgagee institutions.

* * *

BRICKS, NAILS AND 2x4's

THERE are some basic things about homes and housing that some of the people who are continually babbling about "mass production," "building houses like automobiles" and the like ought to know.

Simply because the automobile industry, which was born of a new age just a few decades ago, has made great progress does not mean that housing, which rests upon the customs, habits and well founded experience of the ages, is necessarily out of date.

Every now and then some luncheon table expert will point the finger of scorn at the home building industry

saying, "Why, even today they are building houses by putting brick on brick just the way they did centuries ago." He implies that there is something very backward and unenlightened about this.

Survival of The Fittest

Let us take a look at some of the basic ideas and materials of home building. Is the 2x4x8-inch brick just an accident? Did this size just come about by luck? It certainly did not. Anyone who has tried using other sizes soon has discovered that this particular dimensioned piece is the most convenient and practical to use.

Take the common 2x4, for another example. Some of these parlor chair experts might try substituting a 2x3. Many men in the building industry have, and on the basis of tests of all sizes and kinds of lumber, always come back to the 2x4. It has just enough thickness to nail to easily. Its depth is enough to prevent warping due to temperature differences. Its vertical strength is great enough for any purpose. It is strong, resilient, workable, convenient.

The theorists who talk of new ways of building homes seem to feel that the use of brick, 2x4's and nails has never been questioned. Quite the contrary; every basic operation in home building is constantly being questioned, tested, and proved. But invariably the experimenters come back to the basic materials of standard size. Many substitutes for the common nail have been tried, but to this day the principal of the common nail and its flexible, convenient use cannot be beaten.

The Mechanic Must Approve

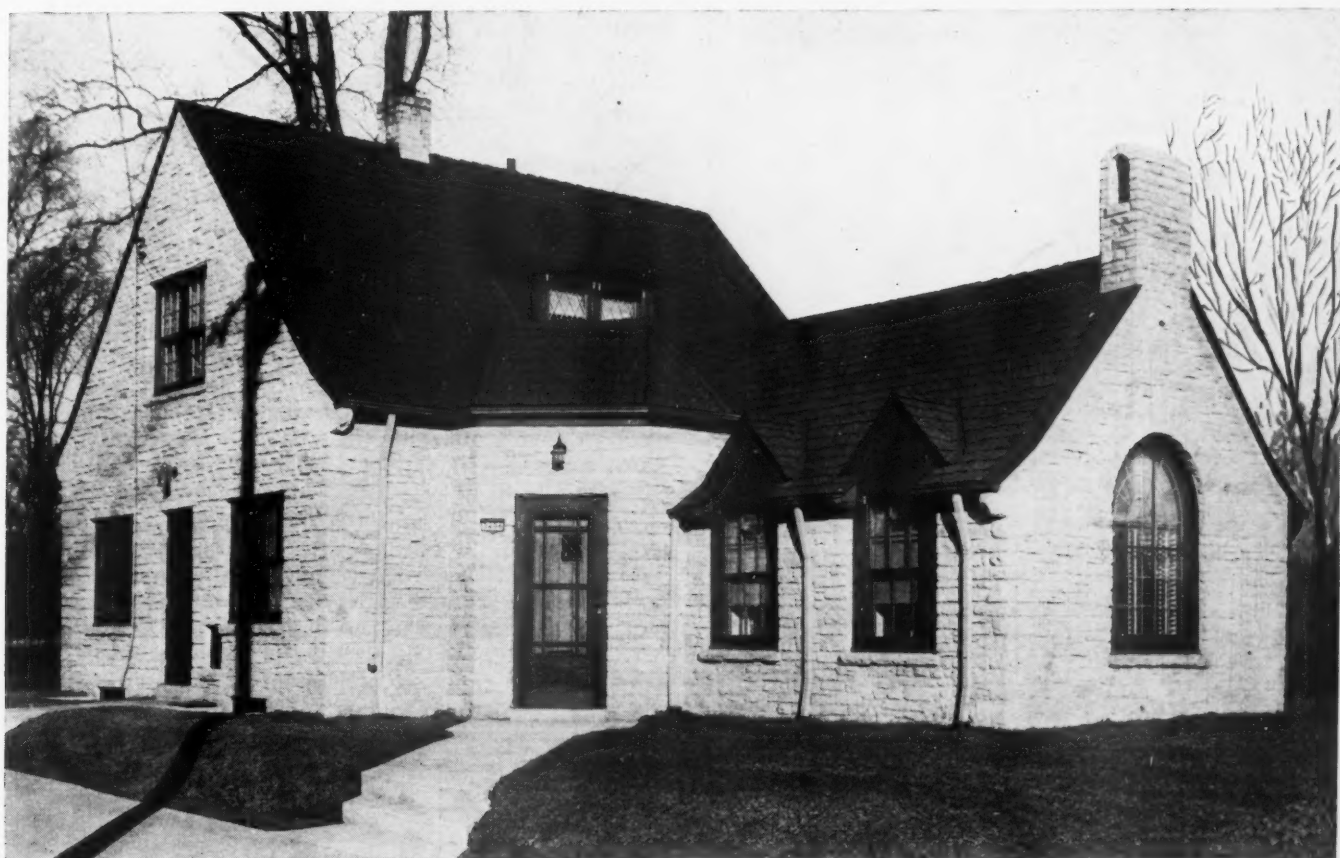
This brings us to another point about home construction. Building material manufacturers and many others both in and outside the building industry tend to neglect the importance of the mechanic. Time and again it has been proved that no new material or new idea can make great headway unless it is accepted by the mechanic who actually applies or makes use of the product on the job.

Wise contractors do not go against the experience of their mechanics—when this experience is sound and the men know their subject. "When my carpenter foreman tells me he prefers X's type of wallboard to another, and gives his reasons, I don't argue with him," a prominent contractor told the AMERICAN BUILDER the other day. "If his reasons are good, he gets X's wallboard. The mechanic can do a better job when he thoroughly believes in the material he is using." Many a manufacturer who has brought out a very useful and valuable product has seen it avoided and ignored by the building industry for only one reason—in some small respect it aroused the antagonism of the mechanics who had to use it.

The building industry needs to progress, and must keep adopting new ideas. But it cannot ignore the basic fundamentals of the brick, the nail, the 2x4—and the mechanic who uses them.

OPERATIVE BUILDERS

A monthly department for the men who plan, erect and equip homes for sale



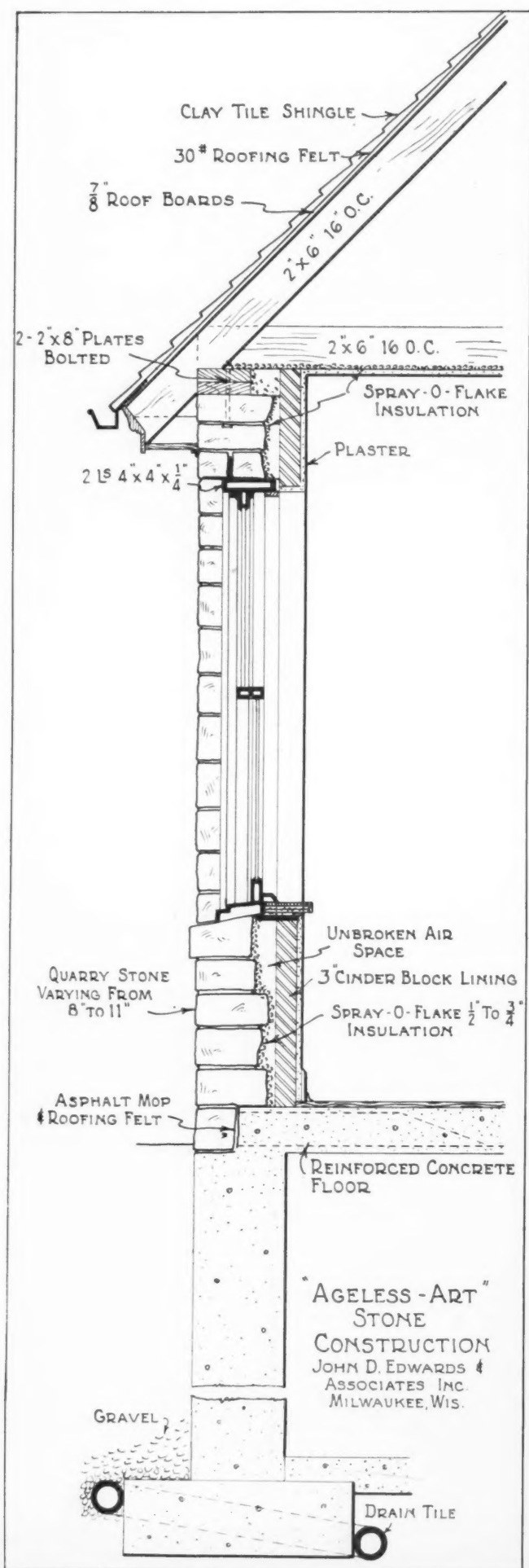
"Better Stone Houses for Less" Is Milwaukee Builder's Sales Slogan

THE man or organization, building homes for sale, naturally has a great advantage if some exclusive construction feature of unusual merit and novelty can be offered to the buying public. With the revival of activity among operative builders this spring the new ideas and improvements developed and tested during recent quiet years come into prominence. The new home models for 1935 will set new bounds for style, convenience and lasting quality. And it is the operative or "speculative" builders, erecting complete homes for sale, who will put most study and effort into their work, since they have most to gain from the public's approval.

In Milwaukee stone houses are popular; they are accepted as proof of substantial value; Milwaukee build-

ers generally know how to produce good looking stone houses. The costs, however, usually run high. For these reasons the recent accomplishments of John D. Edwards & Associates, Inc., in producing "better stone houses for less" by a radically new yet very simple construction method classify as important news to all operative builders.

John D. Edwards & Associates, Inc., is a Wisconsin Corporation licensed to engage in all phases of home construction and realty activities. Mr. Edwards has been engaged in home building in Milwaukee for more than 10 years. Many of his homes have been small and inexpensive, but even these have embodied craftsmanship and beauty. "Studio Homes" and "Colonial



Homes" were developed and extensively promoted by him. A feature of his advertising has been to tabulate the names of those for whom he has built, inviting the public to contact them for references.

The new and revolutionary method of home construction (a protected method) which the Edwards organization is now pushing is creating a great deal of interest not only in their local field but nationally.

The object of the Edwards invention is to provide improved fireproof homes of pleasing and attractive appearances, which may be readily erected in any of our traditional styles of architecture and at a cost no greater than wood or ordinary brick veneer.

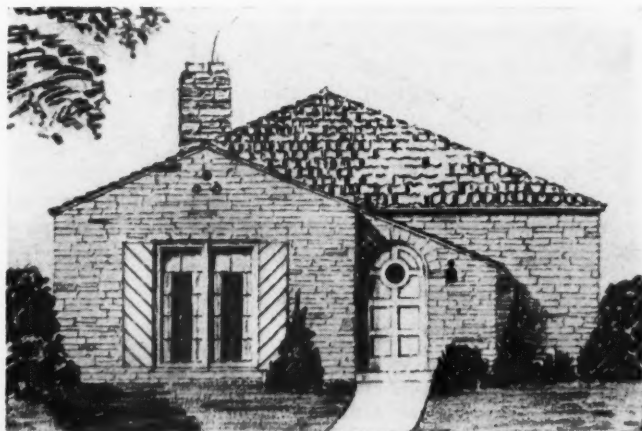
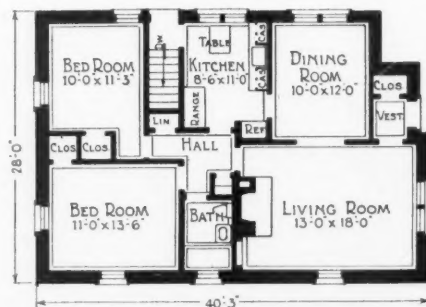
The method of construction employed permits the use of rough trimmed stone for the outer or bearing walls, of a double wall construction. This outer wall is a minimum of 8 inches in thickness but may range from 8 to 12 inches. The stone are laid on their natural bed and, while the inside of this wall is rough and irregular, the outer surface is straight, rugged and beautiful, and compares favorably with any fine stone veneer job.

Asphalt insulation applied by a spraying process directly on the inside of all outside walls seals these walls against the infiltration of air or moisture. The inner wall consists of a light weight insulating block supported by the reinforced concrete floor. This wall is spaced inwardly from the outer bearing wall. By spacing the inner wall from the outer wall an insulating dead air space is provided. Furthermore, by reason of the space it becomes unnecessary to trim the stone in the outer wall portion to an exact dimension, thereby greatly reducing the cost of laying the stone.

All concrete foundations and floors are of ready-mix concrete which is scientifically mixed at a central plant and delivered to the job in rotating hoppers where it is poured directly into steel forms, effecting great savings.

Mr. Edwards believes that every home should be designed and engineered by an architect and he has never built a home that was not so designed. Associated with Mr. Edwards as secretary of the firm is Walter E. Wendland, an architect and engineer. Mr. Wendland

To left, section through typical wall and floor; Below, popular 5-room house of stone for \$4975. Cost key: 1-113 - 136 - 1096 - 46-13-13.



received his training at an accredited school of architecture and has been engaged as an active architect for 12 years. He is a member of the Chicago Architectural Club and the Wisconsin State Association of Architects.

The development of their new type of fireproof stone construction has been gradual; seven years ago they erected the first one wall cinder concrete home ever built in Milwaukee. The following year they erected a fire resistive first floor. In 1929 an extensive cost study of fireproof masonry construction was begun which has culminated in the development of the method described in this article. The men of this organization have long recognized the need of a more permanent type of fireproof home construction, but until the development of the present method they were handicapped (like everyone else) by the cost factor. Fireproof construction had always cost more than wood or veneer construction and it seemed this difference in cost prevented any general acceptance by prospective home builders.

The development of their new method, which, they claim, makes possible the building of substantial fireproof stone homes at prices comparable with ordinary construction, eliminates entirely the cost objection.

Mr. Edwards has kept careful cost records on four houses of his patented double wall stone construction built in Milwaukee during the past six months. The low rate of 47 cents per square foot of exterior wall has been experienced, this comparing with 43½ cents for frame construction with siding, 52 cents for common-brick veneer and 69 cents for face-brick veneer.

His analysis of "ageless-art" stone wall cost is as follows:

Cost of stone per ton.....	\$3.50
One ton stone lays 22 sq. ft.	
Cost of stone per sq. ft.....	.16
Labor laying stone.....	.12
Mortar laying stone.....	.04
Spray-o-flake insulation, ¾-inch.....	.05
Cinder block lining.....	.07
Labor laying block.....	.025
Mortar laying block.....	.005

Total cost per sq. ft.....\$.47

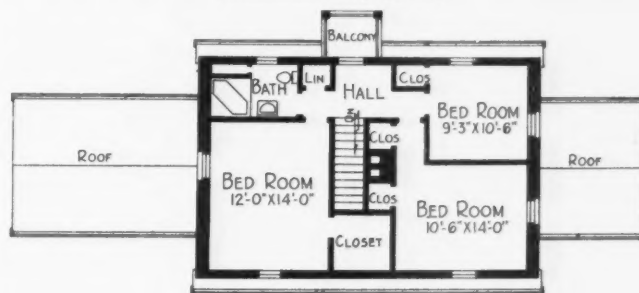
Insulation value, V = 0.128

Realizing that the era of selling high priced and ill-built homes has passed and that the new demand will be for conservatively priced but permanent fireproof homes, the Edwards organization has discontinued building any other type of construction.

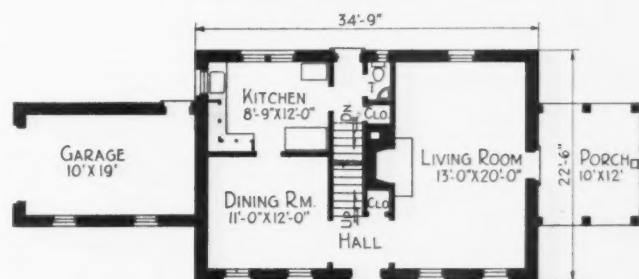
It is also their plan to project this new construction into every community through licensed local builders. Through their service local builders can secure exclusive territory rights, plans, specifications, details, quantity surveys as well as engineering and supervisory service.

Mr. Edwards believes that this new type of construction will give serious competition to light weight or factory-built homes. He points out that practically all research and effort toward cutting the cost of home con-

(Continued to page 84)



SECOND FLOOR PLAN



FIRST FLOOR PLAN

"Ageless-art" stone house by John D. Edwards & Associates, Inc., at South 94th and West Barnard Ave., Milwaukee. Cost key: 1.836-145-780-34-19-19.



Operative Builder Frank A. Clausen

ALONG the fringe of solidly built residential blocks in Rockville Centre, Long Island, N.Y., will be found a regular procession of new homes, some just completed, others under construction. Rockville Centre is within the commuting zone of New York City and its growth has been steady throughout the depression; here builders have found a market for single family dwellings ranging in price from five or six thousand dollars to the more pretentious twenty and thirty thousand dollar houses.

Frank A. Clausen, formerly connected with several of the large general contracting concerns in New York City, decided early in 1922 to go into the residential building business in this Long Island town. He brought to his new business a fine sense of values and a strong feeling of responsibility; the result is that Clausen-Built Homes are known today, in 1935, as highest quality in every respect and Frank A. Clausen is recognized as one of the most soundly established builders there.

"My homes range from \$14,000 upward," said Mr. Clausen. "The average house sells for about \$16,000, including land. I do not confine my operations to any particular section but try to select building sites in locations where transportation is good, schools conveniently close and where there are no bad physical aspects such as low land or land with physical characteristics which would cause additional cost in the construction.

"Houses in the \$16,000 price class are usually sold on a 'down payment' of \$4,000 to \$4,500, with the balance carried on first and second mortgage. I carry my own seconds, usually.

"Under the provisions of the National Housing Act it is now an accepted fact that mortgages should run for 18 or 20 years and that the first mortgage should be larger than previously. I suppose this is the reason why several of the large insurance companies are now offering first mortgage money at rates in competition with FHA money. In fact, since the Federal Housing Administration got under way, mortgage money has become 'easier' and I find there is a tendency to furnish first mortgage funds at lower rates where the risk is good; for instance, a 60 per cent mortgage can be obtained at 6 per cent—a 50 per cent mortgage at 5½ per cent—a 40 per cent mortgage at 5 per cent. This is very encouraging to builders. After all, it is logical that the better the risk the lower the interest rate should be."

Operative Builder Clausen depends very largely upon the recommendations of satisfied customers for new business. "I always employ an architect to draw my plans," he remarked, "although I can do that work myself. I write all specifications and advise my architect in advance as to certain features and products which must be incorporated in the job; in this way I am able to control the quality of each job from the beginning."



Does A Nice Business . . .

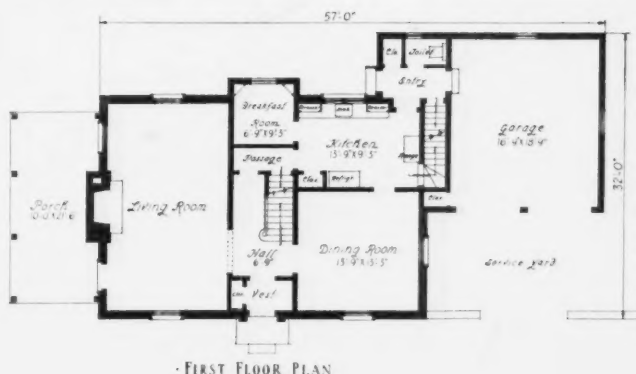
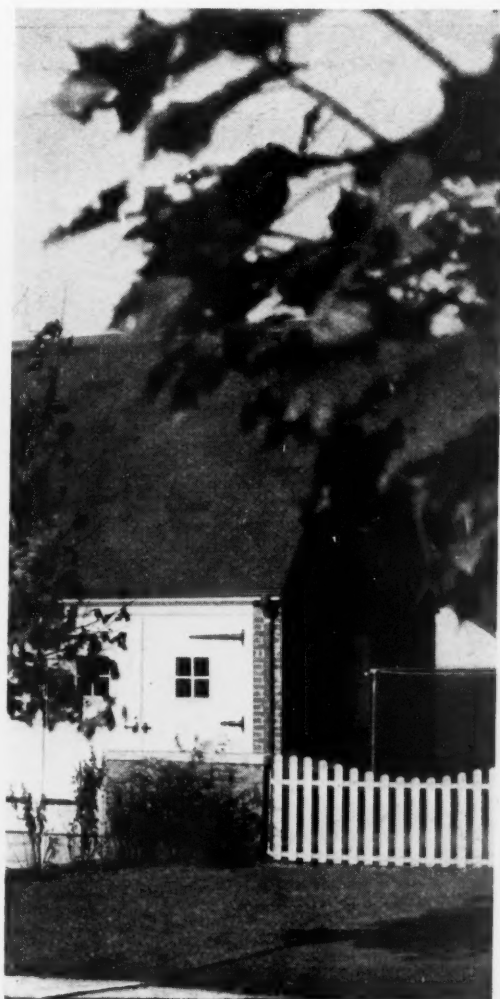
Mr. Clausen builds from four to six houses per year, at an average sales price of about \$16,000. In addition, he contracts other work which comes to him from a long list of satisfied customers and their friends. His business, which is small enough for him to attend to personally, is financed in such a way that no mortgage application is made until after the houses are entirely finished. Illustrations herewith give a good idea of the quality of work involved.

A Good Letterhead

Because he makes only a few sales per year, Mr. Clausen does not do extensive advertising; however, his letterhead carries a statement which, it seems to us, tells a pretty complete story. The letterhead says: "Clausen Built Homes Are Carefully Constructed." Not bad, eh?



Above: On the job with Operative Builder Clausen at Hewitt Road and Leon Court, Rockville Centre, L. I., on February 14, 1935. This house contains seven rooms and three baths and has two-car garage attached; it is located on a corner plot. Built to sell for \$16,000. Left: Operative Builder Clausen as he appeared on the job.



TYPICAL Clausen home built at Rockville Centre, Long Island in 1934. Architect: M. R. Johnke, Hempstead, L. I. This house was carried by Mr. Clausen for about three months, then sold. From four to six homes in this class are built annually by Operative Builder Clausen. Cost key: 2.460-182-1026-45-26-22.

BEAUTY for Sale

**More Than 100 Colonial Homes of
This Style Sold by Prominent New
York Operative Builder**

THIS operative builder—the Harmon National Real Estate Corporation of New York—has proved that homes built for sale can be built profitably with great charm and character.

The two Colonial houses shown here are adaptations of previous model homes built by this firm and are located in Harbor Green subdivision at Massapequa, L.I. The firm now has twelve model homes of this type under construction. More than one hundred homes of architectural design similar to these, designed by Randolph Evans, New York architect, have been built by this firm in the past two years.

The Harmon company is noted for the charm and character of its work, and sets a high standard for operative builders in architectural excellence.

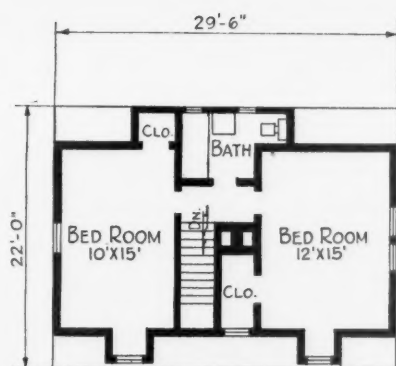
It may truly be said, in speaking of these Colonial homes, that this operative builder has "beauty for sale."



Central hall Colonial type done with unusual skill. Cost Key is 1.670-148-681-31-22-15.



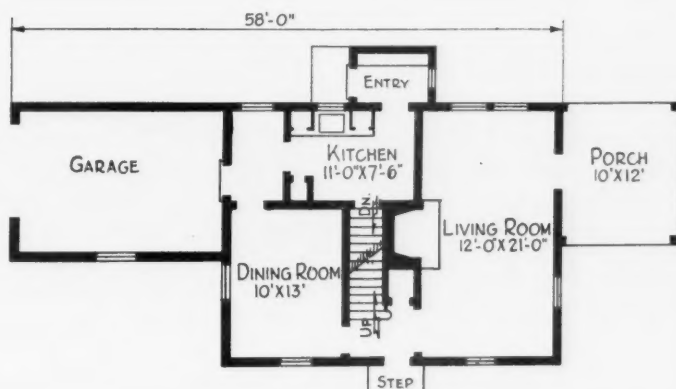
Long Island home designed by Randolph Evans, New York architect. Cost Key is 1.422-194-1042-46-18-20.



SECOND FLOOR PLAN



FIRST FLOOR PLAN



FIRST FLOOR PLAN

Two Colonial Homes by An Operative Builder

ARCHITECT RANDOLPH EVANS of the Harmon National Real Estate Corp. of New York has given these homes unusual architectural appeal. They are low in cost, yet large in appearance and attractiveness. As with most of the homes of this type designed by Mr. Evans, the garage is made an integral part of the home. The floor plans are worthy of careful study.



NOTHING CAN EQUAL the charm of the log cabin

ONE of the best cabin and cottage building seasons in years is predicted this spring. There is more money available to finance this type of work than there ever has been. In addition to the normal private sources, the regulations of the Federal Housing Administration have been liberalized to permit financing of cottages costing under \$2,000 under Title I of the Act.

This provision of FHA has been given little publicity, yet it is highly important. Small structures, such as cabins, cottages, garages and outhouses, are classed as "improvements" when they cost under \$2,000. This means that cabins can be financed with no down payment, if the lot is clear. The carrying charge, which is the regular FHA charge, is reasonable and on a monthly basis which can extend over five years.

The cabin in the country has become a place of refuge and retreat to the city dweller. During the depression, owners of cabins have come to appreciate their rustic and inexpensive summer homes, and people who do not have such homes are more interested than ever before.

Cabin and Cottage Building Time Is Here

FINANCING of cabins and cottages by FHA expected to make this a big year for cabin builders. Public interested in new cottage materials and methods.

The development of new composition and panel materials suitable for cabin building, and the further popularizing of log cabin siding make it possible to build attractive rustic cabins at low cost.

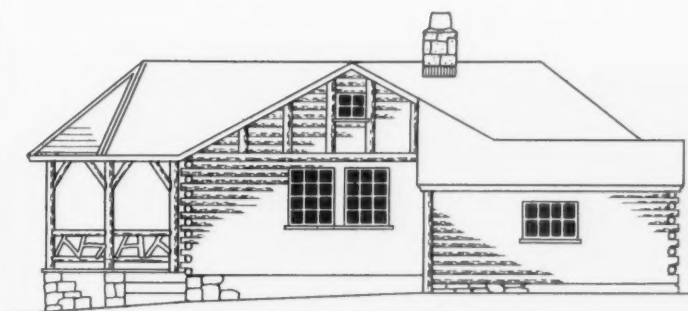
At the same time the old reliable real log cabin continues in many sections to be highly desirable and quite inexpensive.

The most important recent development in cabin construction is the planning of cabins for modern conveniences. The cabin today must be equipped with a kitchen sink, a modern gas or electric stove, and preferably with modern plumbing and lighting. The housewife of today goes to the country to rest and relax. For this reason the conveniences in equipment must be such as to reduce work.

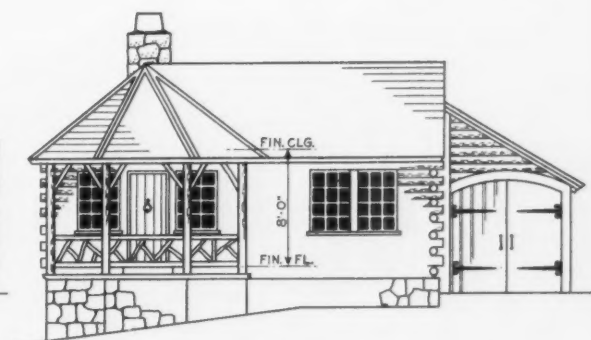
A large number of manufacturers of cabin materials and architects and builders specializing in cabin design have developed new ideas for cabin plans that are up to date. The AMERICAN BUILDER will be glad to put readers in touch with sources of such information and design as well as floor plans and construction data.



THE LOG CABIN offers possibilities for unusual and artistic effects that blend with a woodsy atmosphere. Modern cabins are rustic in appearance, are being built with full modern conveniences, and equipment so that they become places of rest for the housewife.



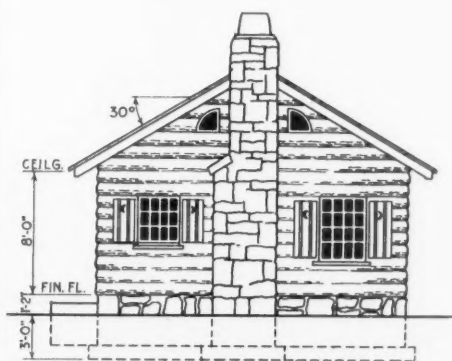
◦ SIDE • ELEVATION ◦



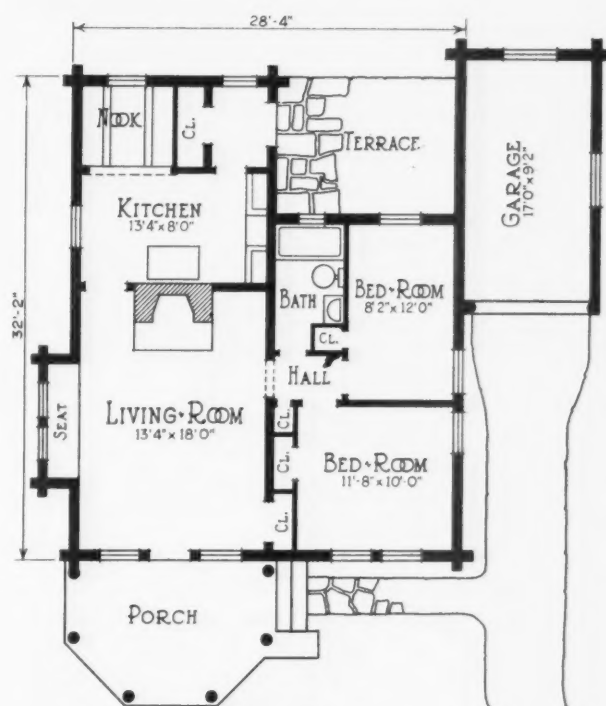
◦ FRONT • ELEVATION ◦

Two Modern Cabins

ARCHITECT CARL H. WECKERS of Mountain View, N.J., has designed these two small cabins in a fashion that is thoroughly in keeping with the modern interest of outdoor lovers. The four-room cabin above can accommodate a good sized family. It has a fine living room, compact kitchen and breakfast nook, as well as attached garage and an unusually attractive porch. Below is shown a three-room cabin of simple design but good construction. The corner fireplace in the large living room is attractive. These cabins can be built of real logs or with log siding on frame construction.

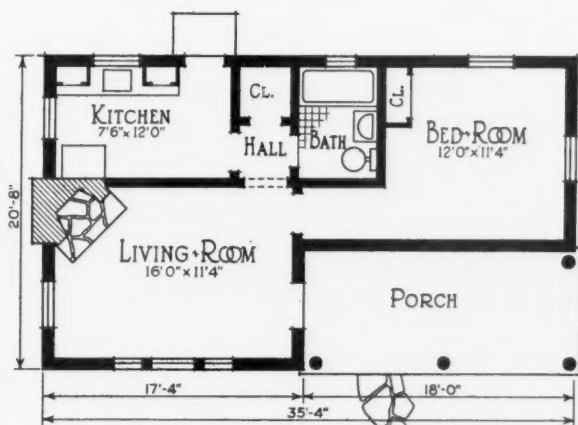


◦ SIDE • ELEVATION ◦

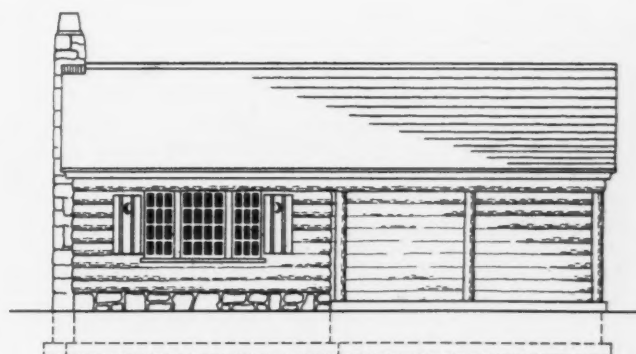


◦ FLOOR • PLAN ◦

0 5 10 15
SCALE IN FEET



◦ FLOOR • PLAN ◦



◦ FRONT • ELEVATION ◦

License Law for Ohio Contractors

Legislation sponsored by newly organized Residential Builders League of Cleveland and the Building Contractors Council of Ohio

By RICHARD F. GOODNOW

ONE of the most important pieces of legislation ever developed for the benefit of the contractor is the license law suggested by the Residential Builders League of Cleveland and the Building Contractors Council of Ohio, which has been presented to the Ohio State Legislature for enactment. If and when passed, it will make Ohio the second state in the Union to pass a contractors' license law, the State of California being the only other state now operating under a license law for contractors.

Impetus to this Act was given through the activities of the convention of builders and contractors of Ohio which met in Cleveland early in January of this year, primarily to endorse this legislation. It was also speeded on by reason of the fact that Titles Two and Three of the Federal Housing Act are now in operation in Ohio, four houses having already been insured and started in Cleveland.

The Act in summary provides:

"For the registration of building contractors, and defining the term building contractor; providing the method of obtaining licenses to engage in the business of building contracting, and fixing the fees for such licenses; providing the method of suspension and cancellation of such licenses; and prescribing the punishment for violation of the provisions of this act."

When this law is passed, a State Board of Examiners for Building Contractors will be promptly set up for the purpose of granting licenses; it is proposed that this Board will be composed of five builders who have been in active practice in the State of Ohio for not less than ten years previous to their appointment.

The members of this Board will be required to satisfy themselves, upon proper evidence, concerning the integrity and ability of each applicant and that from their examination the applicant is qualified to practice the profession of contracting. The term "Building Contractor" is clearly defined in the Act as follows:

SECTION 3. A building contractor within the meaning of this act is a person, firm, copartnership, corporation, association, or other organization, or any combination of any thereof, who in any capacity other than as the employee of another with wages as the sole compensation, undertakes or offers to undertake or purports to have the capacity to undertake or submits a bid, to construct, alter, repair, add to, subtract from, improve, move, wreck or demolish any building, excavation, or other structure, project, development, or improvement, or to do any part thereof, including the erection of scaffolding or other structures or works in connection therewith; provided, that the term building contractor, as used in this act, shall not include anyone who merely furnishes materials or supplies without fabricating the same into, or consuming the same in the performance of, the work of the building contractor as herein defined.

ROBERT F. GAISER
President Residential
Builders League of
Cleveland



There are a number of exemptions from operation of the act which are set up as follows:

SECTION 2. This act shall not apply to:

(a) An authorized representative or representatives of the United States government, the State of Ohio, or any incorporated town, city, county, or other municipal or political corporation or subdivision of this State;

(b) Any construction or operation incidental to farming, dairying, agriculture, horticulture, viticulture, or stock or poultry raising;

(c) Officers of a court, provided they are acting within the scope of their office;

(d) Public utilities operating under the regulation of the State Railroad Commission on construction work incidental to their own business; or any construction, repair or operation incidental to the discovering or producing of petroleum or gas, or the drilling, testing, abandoning, or other operation of any petroleum or gas well, when performed by an owner or lessee;

(e) Owners of property, building thereon dwellings intended for the use and occupancy of such owners and their families, and not intended for sale;

(f) Any work or operation on one undertaking or project by contract or contracts the aggregate contract price for which, for labor, materials, and all other items, is less than one hundred dollars, such work or operations being considered as of casual, minor or inconsequential nature; or any work or operation, the final completion of which will require the services or activities of not more than two trades or two sub-contractors; provided, however, that the limitations of this section shall not apply in any case wherein the work of construction is only a part of a larger or major operation, whether undertaken by the same or a different contractor, or in which a division of the operation is made in contracts or division of trades for the purpose of evasion of this act. For the purpose of this act, a trade is hereby defined as a branch of the work involving materials of substantially all the same kind or class, and/or requiring labor of installation of substantially all the same craft;

(g) Any work or operation connected with the sale or installation of any finished product, material, or article of merchandise, which is not fabricated into and does not become a permanent fixed part of the structure;

(h) Any construction, alteration, improvement or repair of personal property except as limited by subdivision (g) of this section.

This exemption makes it possible for the "odd-job carpenter" to take contracts under \$100 and not be placed under the necessity of securing a license.

A reasonable annual license fee is set up at \$10 per annum, to be payable on June 30th of each year; this is the fee for the first year; the following years are to be

(Continued to page 84)



"A Cottage in the Trees"

Cost Key is 1.590—175
—1420 — 59 — 21 — 24

THIS MONTH'S FRONT COVER HOME
Designed by R. Harold Zook, Chicago Architect

ARCHITECT R. Harold Zook, and Mellbaum Bros., contractors, have here produced a charming small English home that has attracted wide attention. The second floor was not finished at the time of construction, so is not shown on the plan. There is ample room however for two large bedrooms and a bath, or three small bedrooms. Thus this becomes a seven or eight-room house capable of taking care of a good sized family.

Common brick is used except for certain portions of 12-inch siding stained a light brown. The cantilevered corner bedroom window with seat is a popular feature. The dining room has a large, factory-type steel window extending from ceiling to floor which is very much liked by the owners. Living room is two stories in height, with a handsome open staircase.

The house is substantially built and rests on the top of a rising crest of ground where it fits in perfect harmony with its surroundings. The roof is of standard 16-inch wood shingles stained dark brown. These have been laid in an irregular pattern designed by the architect.

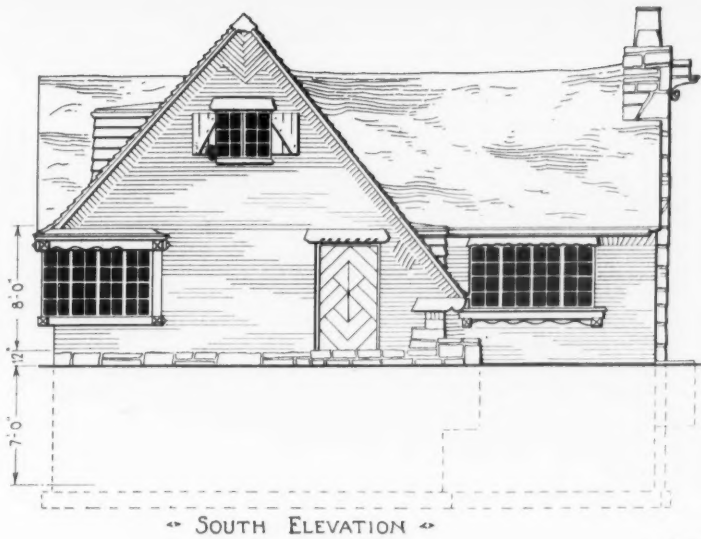
Particular attention is called to exterior

chimney and gable wing of the living room. These are done in such splendid proportions that they were selected by the artist for featuring on the AMERICAN BUILDER cover for this issue.

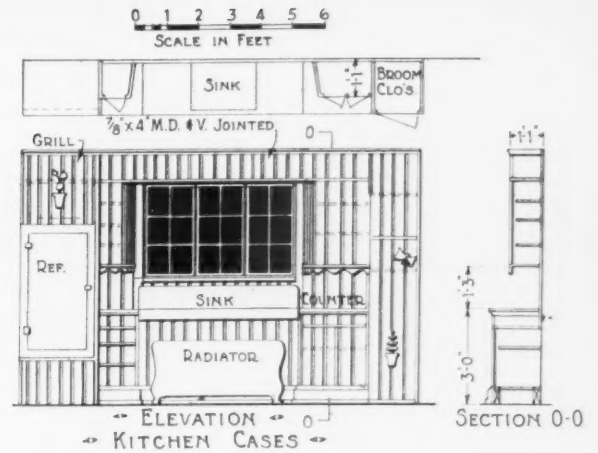
Floor plan of the house is unusual but very successful according to the testimony of the owner. The kitchen is placed at the rear. The living room is large and well arranged, the dining room very attractive with its huge windows.



PLANS ON FOLLOWING PAGES

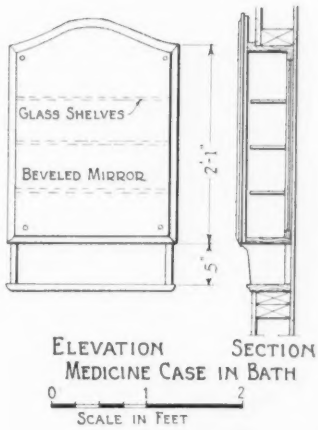


← SOUTH ELEVATION →

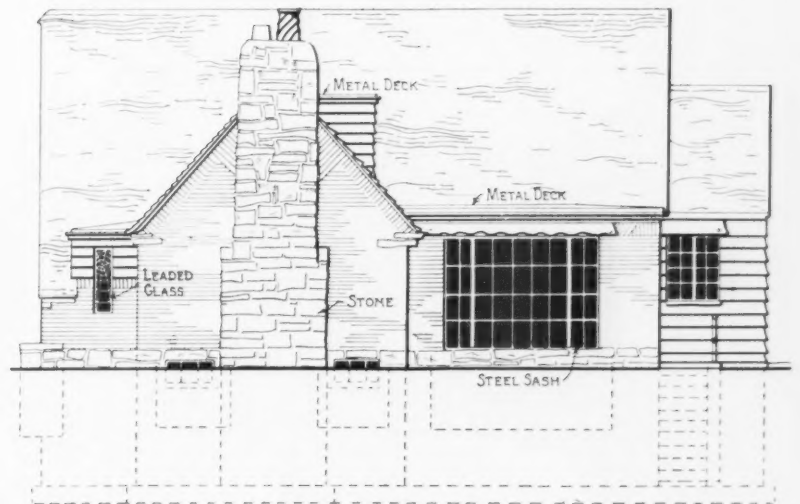


← ELEVATION →
← KITCHEN CASES →

SECTION 0-0



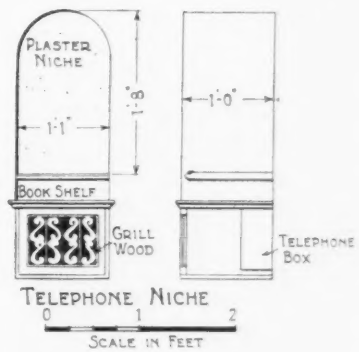
ELEVATION SECTION
MEDICINE CASE IN BATH
SCALE IN FEET



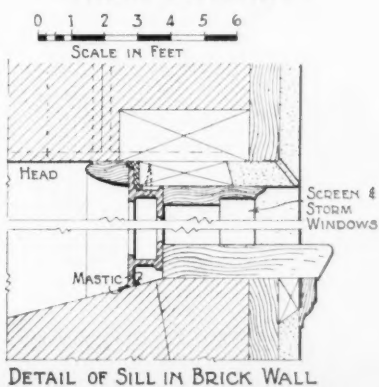
← EAST ELEVATION →



← NORTH ELEVATION →



TELEPHONE NICHE
SCALE IN FEET

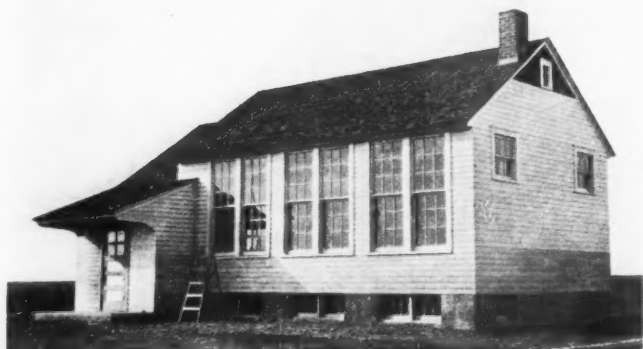


DETAIL OF SILL IN BRICK WALL



← WEST ELEVATION →

Details for Better RURAL SCHOOLS



TWO SMALL RURAL SCHOOLS recently completed by Architect McClure. Above is one-teacher school detailed on opposite page. Note class room windows at left and rear. Below is two-teacher school, well lighted. Both designed by Hugh M. McClure, Kearney, Nebraska.



PRESIDENT ROOSEVELT is reported as considering spending \$500,000,000 of the proposed 5-Billion Work Relief appropriation for building better rural schools. Here is an opportunity for builders that should not be neglected.

Every school improvement needs an energetic local backer. Let every builder drive out into the rural communities surrounding him and carry the message of better school buildings to the parents of every school child within the district.

Show the parents and the school officials how the windows in their old, unhealthy, poorly lighted schools can be rearranged and added to in order to give proper lighting. Go into other details showing how the old school is poorly ventilated and heated, poorly planned and a menace to the health and future of their children.

For example, lighting is one of the most important items. The heads of the windows should be set at a height from the floor which is equal to one-half the width of the room.

The total glass area of the class room windows should equal or exceed twenty per cent of the floor area of the room.

All windows in the class room should be placed at the left of the pupils as they face the front of the room, or at the left and rear.

If possible, there should remain from three to five feet of wall from the front wall of the room to the beginning of the window group.

The window shades should permit shading the win-

Congress May Appropriate Millions for Better Schools. Builders Urged to Explain Details to Local Boards. Big Opportunity for New Business.

By HUGH M. McCLURE

Architect, Kearney, Nebraska

dows at the bottom, with light admitted at the top. (Either center roller shades or adjustable roller shades will accomplish this.)

These few points, attained, will result in a well lighted and correctly lighted class room under normal conditions. For unusual conditions, such as excessive shading from outside, or north light, every effort should be made to increase the glass area of the windows.

Like the keystone in the arch, lighting is perhaps the most important, but it must be supported by proper conditions for safety, cleanliness, health, convenience, inspiration, and the many other stones of the arch.

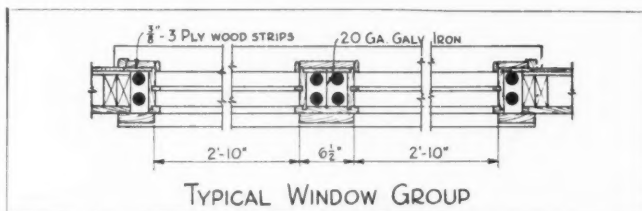
There should be not less than fifteen square feet of floor area in the class room for each pupil, and twenty-five square feet of floor area for each teacher.

There should be approximately two hundred cubic feet of air volume within the class room for each individual housed therein.

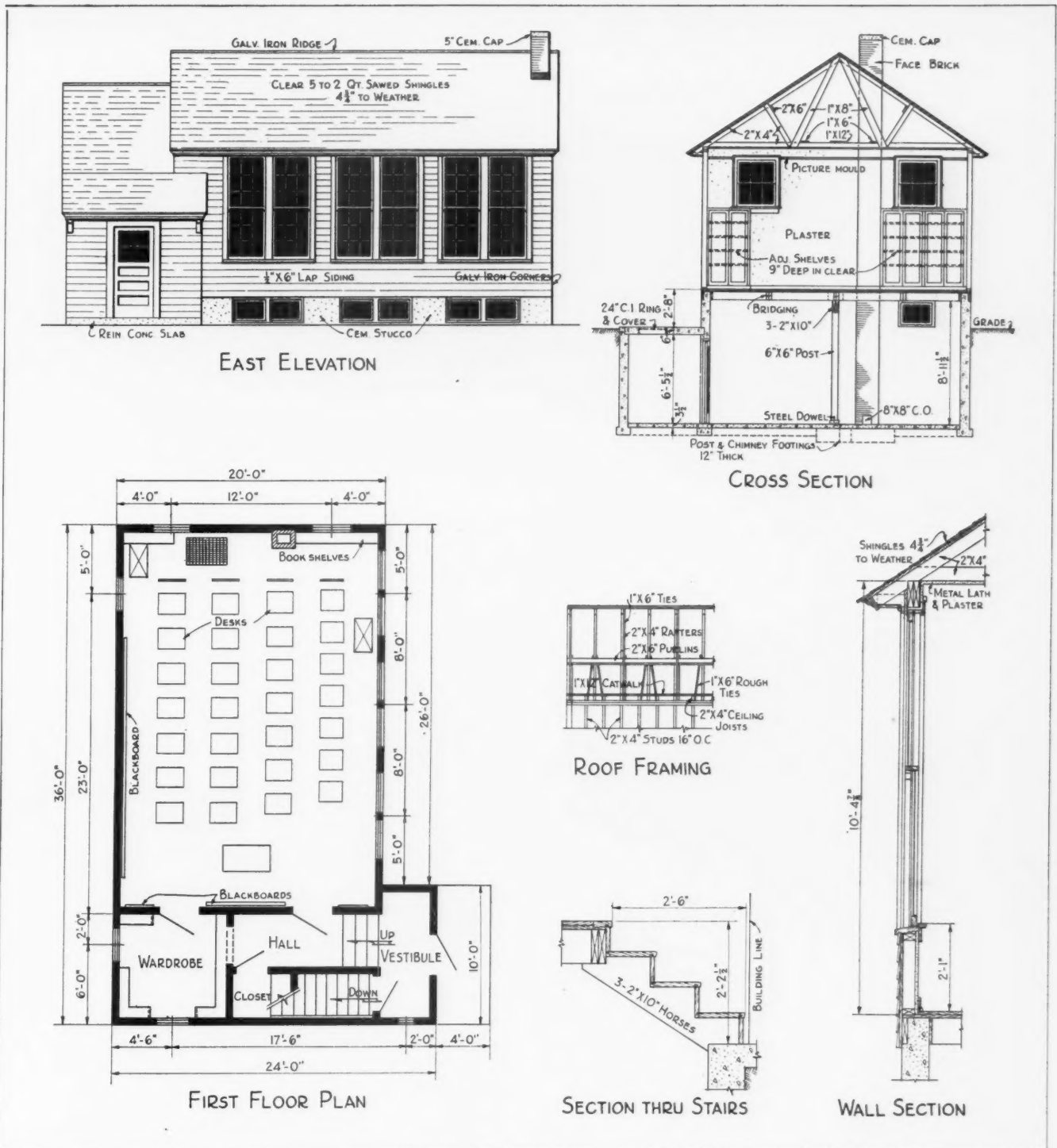
The furnace, as a safety factor, should not be placed under that floor area which is close to the exit door. The cold air return ducts to the furnace should be made of metal, not wood; and even then there should be provisions for conveniently cleaning them out. The heat registers should be properly insulated from the floor joists, and should be screened in order to prevent the accumulation of inflammable materials in the heat pipes. The fuel room should be absolutely fireproof, to guard against spontaneous combustion.

Modern toilet rooms, including lavatories supplied with hot water, are perhaps a little in the future for small rural schools, but the thought intrudes that just one case of typhoid more than justifies the cost of sanitary equipment.

Greater use of the building, (plant efficiency), can be increased by keeping in mind its use for community gatherings of all kinds, including agricultural club programs, and even political meetings. This suggests provisions for a recreation-dining room of suitable appearance, in the basement, a range for the preparation of refresh-



DETAILS OF TYPICAL WINDOW CONSTRUCTION for small school.



A FEW DETAILS OF A SMALL, ONE-TEACHER SCHOOL such as illustrated at top on opposite page. Note that windows are at left and rear of students' desks. There is adequate light, sound construction, proper arrangement. Hugh M. McClure, Kearney, Nebraska, Architect.

ments, cupboards, tables, benches, and lighting equipment for evening meetings.

There is so much room for improvement in our typical rural school buildings that here, I am firmly convinced, is an excellent place to begin the building revival.

In the cities we have the drives for auditoriums, for sewer systems, school buildings, viaducts and subways, and the various programs for better housing, and home modernization and improvement; but in the country there are none of these things.

Let us wake up to the real and urgent need for better rural school buildings. Just as the rural communities are the real source of wealth, so also are the rural school buildings the potential source for the dissemination of

the information and inspiration necessary to create the desire for higher standards, not only in the school buildings, but also in the houses and the homes of the patrons of our thousands of rural "seats of learning," which, by the way, are very badly worn!

Editor's Note: A very helpful 73 page booklet on rural schoolhouses, giving approved plans, construction details and useful data is published by the U. S. Department of the Interior, Office of Education. The title of the booklet is "Bulletin No 21, Rural Schoolhouses, School Grounds and their Equipment." Price 20 cents. This may be obtained by writing directly to the Superintendent of Documents, Washington, D. C.



How To Lay Out a High Corn Crib

By H. A. HEIMBECK

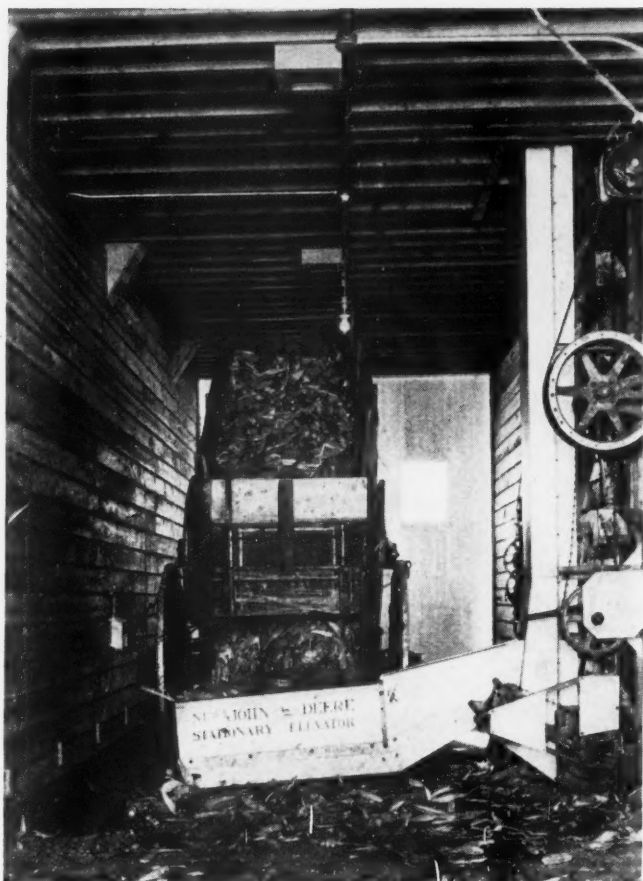
CONTINUING the analysis of the group of modern farm buildings I planned and built near Hamlet, Ill., we come to the combined corn crib and grain storage building. It is a composite of ideas obtained thru visits to similar cribs and study and consideration of the merits of different layouts and structural details. Careful thought was given to avoid common errors such as inadequate foundations, faulty bracing and tying and correct cupola requirements for spouting and workability.

The design adopted is standard for the layout of a satisfactory corn and grain storage for the Illinois Corn Belt. The construction provides economical storage, ample ventilation, protection against weather, storm and rats. The building is attractive in appearance, substantial, durable and arranged for economical filling and emptying.

The capacity, 5000 bushels of ear corn and 3500 bushels of small grain, was determined by the farm requirement with allowance for future storage and holdover.

A reliable electric power type elevator was selected and the manufacturer consulted for space and clearance in the aisle and requirement for the delivery head and spouting above the grain bin deck and in the cupola.

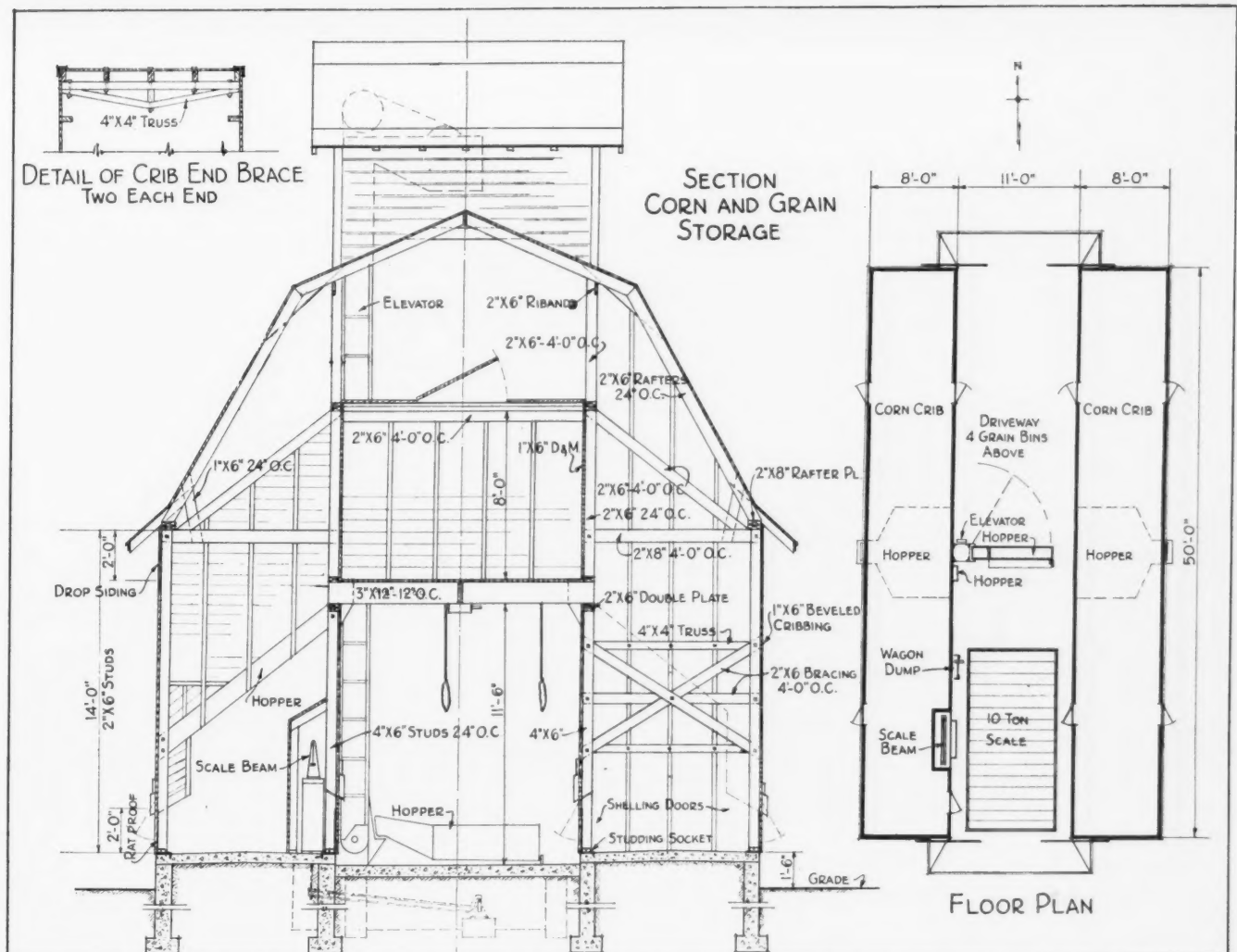
The site selected is well drained and convenient to the farm court, from the fields and for stock feeding. The length is placed north and south providing most benefit from wind and sun. The front is on the north and west end of the farm court in line with the hog house and general purpose barn. Adjacent buildings



Wagon load of corn being dumped into elevator boot in crib driveway

in this vicinity give free air circulation.

The size of the building is 27 feet wide and 50 feet long. A 11 foot aisle gives required space for the receiving hopper and dump selected, is convenient and uses 12 foot grain bin joists economically. The 8 foot crib width is considered standard for this locality. The boot of the elevator rests on the driveway



floor, no pit being necessary. Shelling trenches were omitted. Horizontal shelling doors are provided in the driveway and outside of each crib. Each crib has two grain doors inside and outside for shoveling and entrance. These doors are stud opening wide, equipped with slanting removable barrier. A ten ton platform scale with concrete pit is placed in the south end accessible to the farm court and near the elevator hopper for crib use.

The continuous concrete foundations are well made on good bearing soil. Footings are below frost with eight inch concrete walls poured eighteen inches above established grade. All footings and walls are reinforced both ways with ample corner reinforcement. The crib floors are six inch concrete laid on tamped fill, crowned for drainage, reinforced both ways and doweled into the bearing walls. Galvanized stud sockets are set in the concrete 24 inches apart. The crib floors are troweled to provide good surface for shoveling and drainage. The 6 inch reinforced concrete driveway is at main barn floor level with rough surface and drained to either end of the building.

The outside walls are framed with 2x6 studding, 14 feet long, 24 inches on centers, set in stud sockets with bolts. The driveway studdings supporting the grain bin are short 4x6's 24 inches on centers, set in stud sockets and framed for 11 foot 6 inch driveway clearance with double plate off below the bins. Grain bin joists are 3x12, 12 inches on centers, bridged and covered with 1x6 D. M. flooring dressed and matched. The grain bins are framed 8 feet high with 2x6 studdings, 24 inches on centers with double 2x6 plate

on the top. The 2x6 supports for the gambrel roof continue, 4 feet on center line with 2x6 ribband for rafter bearing.

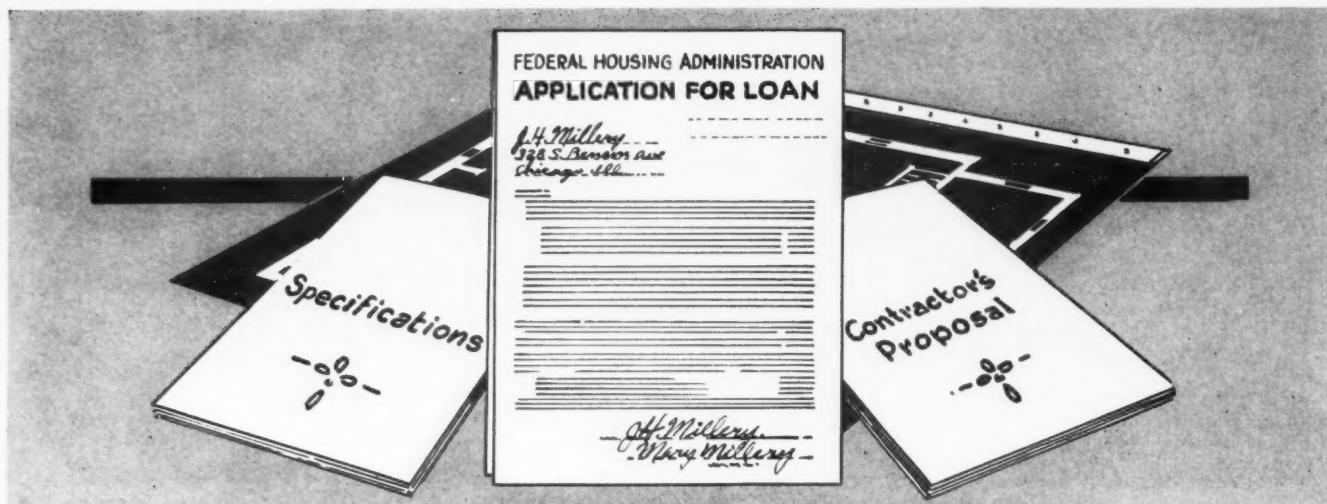
The triple 2x6 braces and tying are placed 4 feet on centers, arranged so they will not be subjected to the load of corn above them. All bracing and tying is bolted at ends with $\frac{1}{2}$ -inch carriage bolts with washers. Rafter plates are double 2x8. The gambrel roof is main barn roof pitch and offers best accessibility for spouting. Rafters are 2x6's, 24 inches on centers, with 1x6 ties to wall studding. The cupola is framed 2x6.

The four overhead grain storage bins have 1x6 matched sheathing on the inner side. Tops of bins are covered with 1x8 ship-lap with continuous doors thru the center for filling. Additional hoppers for grain and ear corn are placed in the center of each crib. These hoppers can be filled from the cupola spouting heads and emptied from a chute to the outside feeding floors. Each grain bin has ceiling valves in driveway for wagon filling and side wall valves 3 feet off driveway floor.

The cupola is framed 8 feet wide to permit spouting to any part of the building. The center of the cupola is at the ridge of the main roof. The east and west gable end have large windows for ventilation. The gambrel roof is framed 1 foot higher than manufacturer's requirement to insure sufficient space for erecting the elevator head and proper working space when in position.

The four corners of the main roof and cribs are wind braced with diagonal 2x6's to the main top plate and crib floors. At the end

(Continued to page 84)



HOME EQUIPMENT

Nothing Down—5% Interest—Up to 20 Years to Pay

New opportunities for lower costs under FHA financing. Heating, plumbing, electrical, air conditioning planned in advance and included under one contract give added responsibility.

By V. L. SHERMAN

Department of Mechanical Engineering,
Lewis Institute of Technology, Chicago

It strikes me that the proposals of the Federal Housing Administration come at the most fortunate time for the general building contractor. During the past four years the manufacturers of home equipment and building equipment in all of its branches have made strides ahead that in ordinary times would have taken at least ten years. There has never been a time like the present for the general contractor, when the entire field of equipment is considered. And then when we consider the prospects opened out by the advent of the Federal Housing Administration the times should indeed present a most fortunate appearance.

My meaning is this. At no time has research in the building equipment industries advanced so rapidly as it has in the past four years. At no time have the various societies and organizations of the industries taken firmer hold on their oars to pull themselves into the current of progress. An entirely different feeling is making itself known, a better feeling, that by co-operation entire sections of industry are bettering their business and thereby building it up. What more fortunate time than now can the general contractor, his client, and the mortgagor hope for, when he can take advantage of this advancement under a single, long term mortgage at such a low interest rate? What community can afford to pass up the chance of building homes of real quality under such conditions? What manufacturer but would give his efforts to supply the general contractor with the best information and equipment, when the field is opening to such real and

complete housing equipment?

In this coming trend of home building there is another feeling which is growing rapidly and logically. The householder wants complete equipment. They have become tired of the care of this and that "gadget" which they were coaxed to buy on the installment plan. Now a "gadget" is a piece of equipment of poor quality which is bought and used without regard to the rest of the workings of the house. It may be a motor which interferes with the radio, or it may be any of a number of things; but it is poison to the home owner.

The man who is in the market for a home now, and more especially his wife, wants a home into which every piece of mechanical and electrical equipment will be placed for convenience and completeness. The home should be completely equipped, more especially when such wise choosing may be had at the start, and the entire cost centered under a single mortgage with a long life to run and a low rate of interest charged. Completeness of equipment is essential.

One of the most striking features in the progress of building is that of heating. A fellow does not have to be so very old to remember splitting wood for the kitchen stove or to remember keeping the kerosene can away from the gasoline can so that he might not by ill chance blow the kitchen off the rest of the house by pouring gasoline on the cobs when he lit the fire. Even now it is extremely rare to hear of a householder eliminating a furnace door by trying to burn a type of coal that should only be handled by a stoker. Times have changed.

In the sketches, Figures 1 and 2, we wish to point to the advancement made in heating. In many instances "radiators" were just what the name implies, a heating element about which air stagnated until the excess heat could partially radiate through the air of the room. The

HEATING - AIR CONDITIONING - PLUMBING AND WIRING

transmission of heat from within to without the "radiator" depends upon the difference in temperatures and the amount of surface supplying heat to the air. With some of the older types of "radiation" the inevitable stagnation of air near the surfaces made the cost of heating a home more than it would be with modern equipment. That is putting it very mildly.

In Figures 1 and 2 we have "convectors." They are carefully designed and are in the real sense convectors. When installed in duct spaces such as shown in Figures 3 and 4 they convey heat from within the convector to the up-flowing air at a very rapid rate. When we consider that air movement within a room has most to do with the proper temperatures throughout the entire room, and that the amount of "radiation" required by a room depends upon the efficiency of the heating elements, it seems to me that more care will come in meeting these requirements, and that the choice of the smaller, well designed type of element will be natural. With the improved designs of steam and hot water heating elements now available it seems to me that we might well throw out the name "radiator," and apply the proper term "convector." In fact these handsome little many-columned "radiators" now on the market are mostly convector and very little radiator.

In Figure 5 is shown a fin-tube convector which is designed to meet the requirements of a one-pipe, gravity return steam heating system. Many have asked whether or not it would be necessary to repipe a house in order

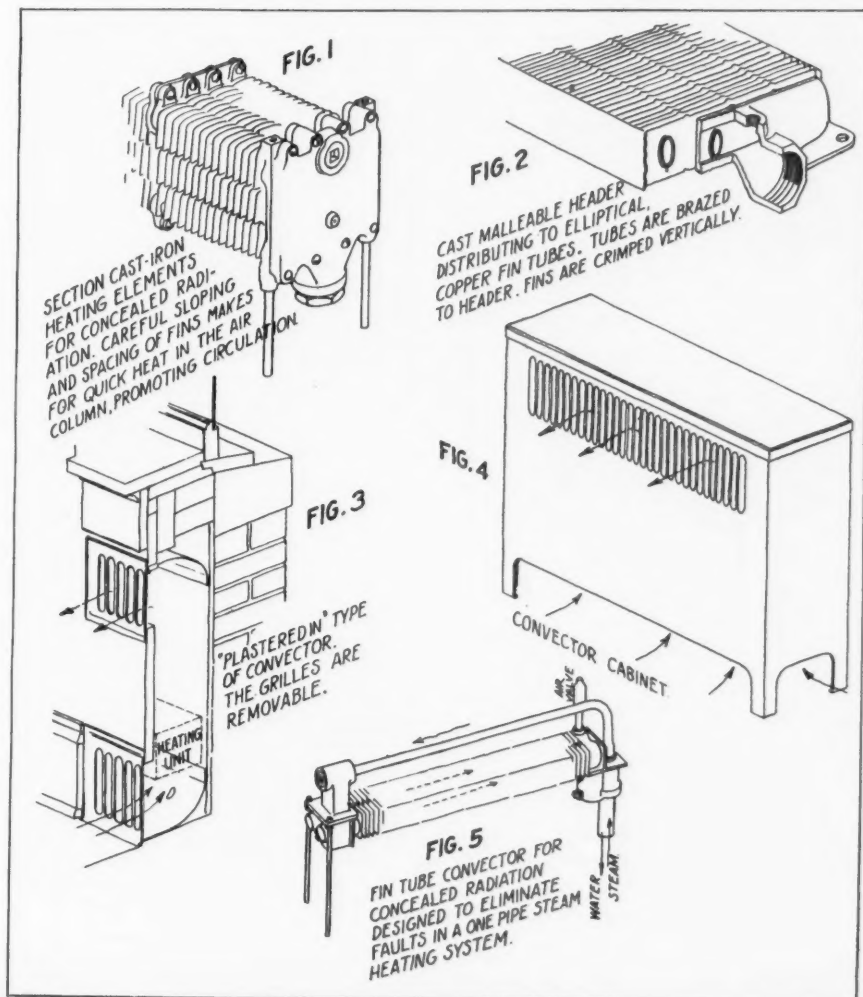
to overcome some of the faults into which a one-pipe system is likely to fall. The simplicity of a one-pipe system and its economy have been attractive points in many cases, but the necessity of keeping the flow of steam and water up to requirements, and of keeping the counter-flowing water of condensation from interfering with the steam flow is sometimes difficult. Then there is the problem of air pockets within the radiator. With all the instructions of the manufacturers and their help, air release valves are badly placed, sometimes made inoperative. The design shown in Figure 5 meets both problems.

A question which is coming up repeatedly these days is that of humidity. Since this applies to the subject of heating as well as to that of cooling, and is a very live question, we are using Figures 6 and 7. During the really cold weather of the winter it is better to supply the air of the house with enough moisture to give a comfortable air. There is some question as to just how much this is, but from tests made through research we have a good deal of data to work from. We hear the term "percent of relative humidity" so frequently. What is it? It is merely the amount of water vapor contained in the air as compared to the total amount that it could hold at that particular temperature.

If it is necessary to find out what the percentage of relative humidity is there is a way of comparing the temperature readings of two thermometers. One of them, called the dry-bulb thermometer, is an ordinary thermom-

eter. The other thermometer, called the wet-bulb, is a similar thermometer with its mercury bulb enclosed in a fine-mesh bag. When this bag is wet and the two thermometers are held up together there will be a slight drop in the reading of the wet-bulb thermometer which is due to the evaporation of the moisture from the bag around the mercury bulb. But the air about the bulbs will accumulate moisture, and the greater the accumulation of moisture the less will be the evaporation from the bag. To prevent the accumulation of moisture about the bag, the two thermometers are mounted so that they can be whirled or spun from a handle. After a number of tests, with the bag water at about the room temperature, when it is determined just how much lower the readings on the wet-bulb thermometer are, the two readings are compared. If, for instance, the dry-bulb thermometer reads 70 degrees and the wet-bulb reads 58½ degrees the percentage of relative humidity would be 50. This is indicated on the chart in Figure 8. If we wished to know the number of grains of water for every pound of dry air the left hand column would show about 53 grains.

Now so far as homes are concerned, both in winter and summer, the present aim is for health and comfort. Just as the different qualities of atmosphere are responded to differently by all of us so will we find that this person recommends precisely one condition and someone else another.



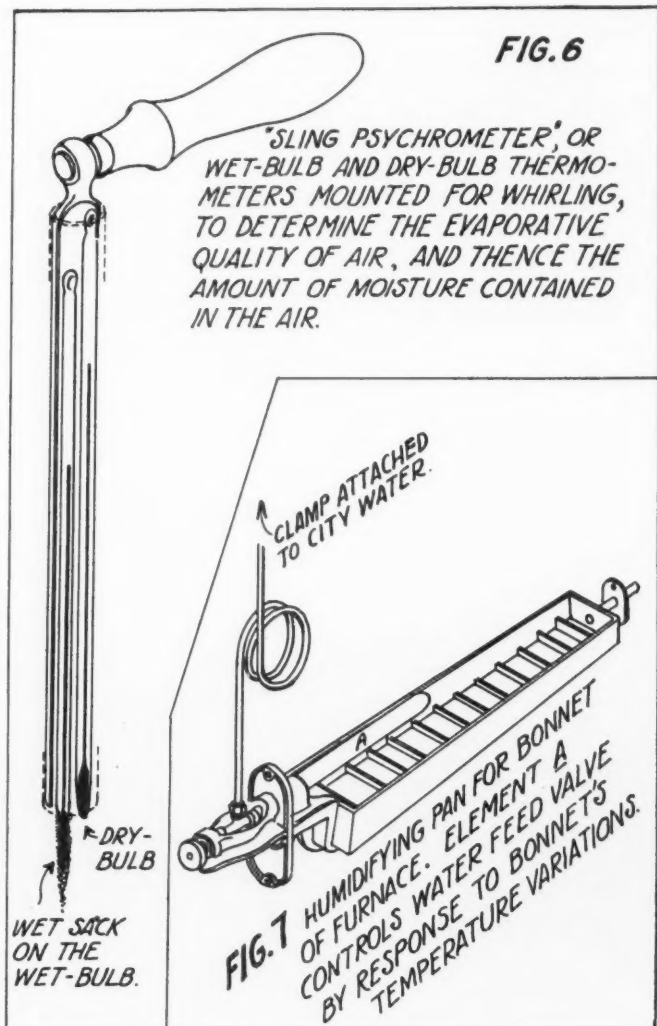
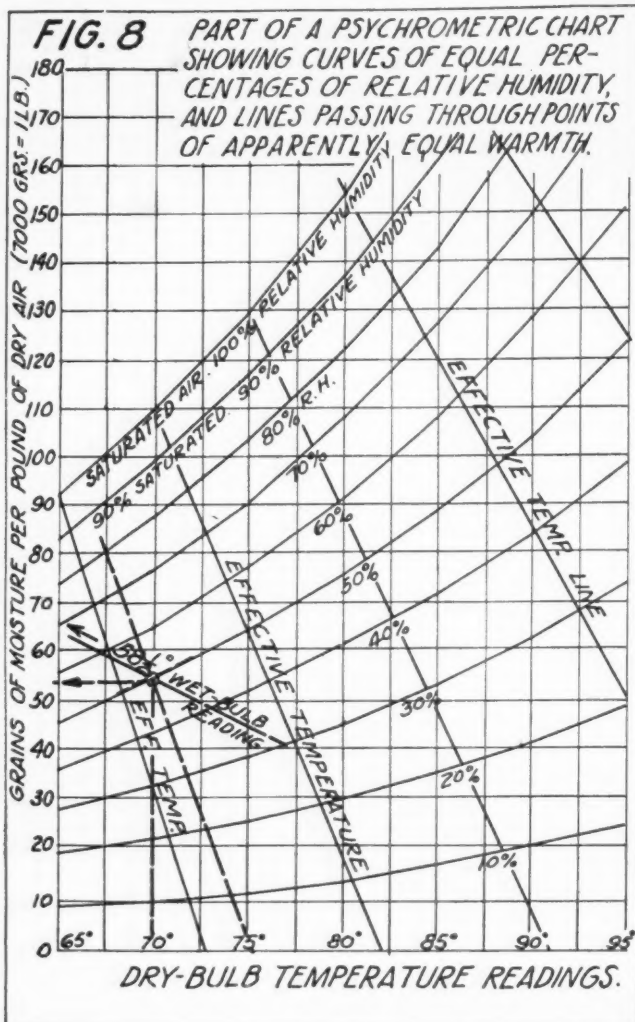
MECHANICAL EQUIPMENT FOR 20-YEAR FINANCED HOUSES

For ten years I have used a humidifying pan in a furnace bonnet much less well designed than the one shown in Figure 7. If it has not met all the requirements of a northern winter I have yet to hear about it.

I have remarked at times that the failure of an element in housing equipment does not necessarily mean that the equipment is faulty. What has just been said about the humidifying pan is a case in point. Properly to test the device to see whether or not it can maintain a fixed percentage of moisture in the air at a given temperature, we should supply the test with some protection. If we do not, possibly something like this may happen. The higher temperature air on leaving the registers or grilles may rise and float under a cold uninsulated ceiling, reach the outer walls, the surfaces of which are colder still, and have to pass down over singly glazed windows. How much moisture do you suppose will be left in the air of the room?

Then suppose we have carelessly left a fireplace damper open by which means we replace the air of the house with fresh outside air at a much more rapid rate than we have any need. We not only lose moist air needlessly but by forcing the furnace and evaporating more in the humidifier we lose that heat which is required for excess evaporation.

It should be pointed out here just what are meant by effective temperatures. Figure 8 shows effective temperature lines. If you were to sit in a room the air of which contained no moisture and the temperature of



which was a little over 75 degrees you would have the same feeling of warmth, in a general way, that you would have if the dry-bulb temperature were 70 degrees and the air were 50 percent saturated, (50 percent relative humidity), or if the air were at a dry-bulb temperature of 67½ degrees and contained 80 percent of its total moisture capacity.

But it requires little imagination for the owner to see that 75 degrees parched air is uncomfortable in the extreme and that 80 percent relative humidity is not comforting even at 67½ degrees. The students in research, then, have come to some general conclusions concerning comfort zones for winter and for summer weather. These zones, usually shown in graphic form, are available. And perhaps the most important point is this. The heating plant which can properly humidify and distribute the air at the proper temperature not only increases our well-being and decreases the fuel bill, but increases the value of the home through the owner's satisfaction.

The president of the American Society of Heating and Ventilating Engineers, in speaking before one of the state sections of the Society, stressed the point of health as the coming consideration in heating and cooling of homes. When we consider, too, that there is a definite trend toward a national responsibility in the question of health what far-sighted general contractor will fail to avail himself of all the improvements within his reach. Should he not see to it that the units he installs are complete and not at the mercy of some future additions?



the Old...

IN many homes will be found unattractive end-halls and nooks of more or less irregular shape. These waste spaces can be transformed into usable, welcome areas by installation of additional equipment—to the delight of the entire family. At the left is pictured such a space, furnished with a discarded rocking chair and a chest covered with blanket (probably placed to hide the framed panel in the wall). What an attractive little library or den this space would make! Or it might be made into a sewing or card room. With children in the house, it could easily become the "study room." In fact, a hundred possibilities offer, to change this almost useless area into valuable space. In the photograph below you see it. . . .

MODERNIZATION

... made New

AT the right is shown the modernized version of the waste space presented in the picture at the top of this page. The old hall-end has been changed at little expense into a modern, attractive small bathroom. Note how completely the framed wall panel has been hidden by a small linen closet with built-in radiator below. This utilization of space benefits the family living in the house, the contractor who does the work, the dealers who supply the materials and equipment and the manufacturers who make these things. This modernization job resulted in benefits to many people, in addition to the owner and contractor involved. *Contractor note:* Money can be borrowed under FHA rules to finance this kind of work, allowing payments over 1 to 5 years. . . .





At Left: Old house before modernization. Below: Note greatly improved appearance and consequently increased value after modernization.



How to Sell

Modernization Contracts

By E. L. GILBERT

"THEY may be spending millions for repair and modernization work," said Jim, "but I'll be dog-goned if I can see the possibilities in this town."

Jim is one of the leading contractors in a town of about 40,000 population, located within fifty miles of the Eastern seaboard. He was talking to an old friend, a man who directs the sales activities of a large manufacturing concern.

"Let's hop into your car and drive around a bit," the sales manager suggested and Jim acquiesced quickly.

"Jim," he said after a few minutes, "there's a house that's pretty well run down—"

"Don't be crazy," advised Jim, "that house belongs to the First Savings Bank—only tenants live in it!" A little farther along his sales manager friend noticed a store with most unattractive exterior. "The fellow who owns that store is so tight he wouldn't spend a nickel to see Lindbergh fly without a plane," Jim said in disgust. At still another point the sales manager pointed to a gloomy old place, a veritable mansion of a house, set back among unrelieved greenery. "That old place belongs to a fine family," Jim admitted, "but they think their place is perfect. You can't begin to talk to them about modernization."

After an hour of driving about, the sales manager asked his contractor-friend to pull in to the curb. "Listen, Jim," he said. "I believe I can show you why you're not finding plenty of jack in this modernizing and repair business. But if I tell you straight truth, you'll have to promise to remember I'm not doing it just to hurt your feelings."

"Shoot the works," said Jim. "I can take it."

"Well, Jim, in the first place you don't believe there's any money in repair and modernization work, do you?"

Jim grinned sheepishly. "I can't see it," he admitted.

"But if you could see where you'd make a lot of dough out of it, you'd go after it, wouldn't you?"

"Sure!" replied Jim.

"All right. Take that first place—the one that's owned by the bank. Did it occur to you that a house in that condition can't be bringing in much rent? If it could be fixed up—made over into two or three apartments, or just renovated enough so it would look decent—wouldn't it bring more rent and attract a higher type of tenant?"

"That's right," said Jim thoughtfully. "I never looked at it just that way. But—" He flashed a shrewd look at his sales manager friend. "—that First Savings is one tough customer to sell anything to because they've got their money in the safest investments they can find—"

"They may have most of their money safely invested, Jim, but the funds they've got tied up in that house aren't safe by a long shot!"

"That's right, too," Jim admitted slowly. "I wonder if—"

"Point number one, Jim!" said the sales manager.

"Check!" replied Jim. "You've given me one idea already!"

"Now suppose we consider that store where the owner is so tight he won't spend money for anything—you've worked on him, haven't you?"

"Yeah," said Jim, uneasily. "He won't even consider—"

The sales manager smiled. "Wait a minute, Jim. That man is in business for just one purpose—"

"To squeeze every last nickel out of this town he can!" said Jim.

"Correct. The more money he can make, the happier he'll be. Well, that's natural. You know, Jim, you're not in the contracting business just for your health, are you?"

"No; but I'm not as tight as that bird is!"

The sales manager laughed. "Sure you are, Jim—on anything that looks like wasted money to you! You wouldn't give a nickel to see Lindbergh fly without a plane, either, if you needed that nickel for a new concrete mixer, would you? I've talked to a few salesmen who've told me you're a pretty tough baby to sell, Jim!"

"Maybe I am a little cold to some of these propositions they try to talk me into buying," admitted Jim.

"But in some cases you do buy?"

"Sure," admitted Jim. "Once I'm certain about it."

"Well, this hard boiled storekeeper prospect of yours is buying things right along," the sales manager pointed out. "He has to replace his stock constantly. Every month he buys electricity, postage stamps, advertising—lots of things. Don't you honestly think, on the whole, he's spent almost as much as you have? In a business way?"

Jim scratched his head. "Maybe so," he said. "It's been pretty tough the last two-three years."

"Then the only reason why that storekeeper hasn't bought from you must be that what you've offered hasn't seemed as attractive as the other things he bought. Isn't that sound logic?"

"Sounds like it," admitted Jim.

"Then what will you have to do to get him to sign on the dotted line?"

Jim was puzzled; he thought there must be a catch in it somewhere. "Think it over," the sales manager advised. "Wait a minute—I'll give you a lead: What kind of stores do you like to go to for your own purchases?"

Jim slapped his knee. "Knock me for a loop!" he exclaimed. "Here I've been talking price to that man all this time—say! I'll bet I can sell that old guy a new store front and—"

"Point number two!" said the sales manager. "But we've still got that big old mansion to think about." He looked at Jim speculatively. "But maybe you've figured out that problem—"

"No," said Jim after a minute. "That's a tough one."

"I don't know, either, Jim," said his friend. "But you can depend upon it—the problem will work itself out. Maybe all you have to do is go through the house with those people, calling your visit an 'inspection trip,' and just point out how easy it would be to put in a new bathroom where trunks are stored now. You know, 'Just like Judge Walmsey's new one.' Perhaps you'll have to invite the young people to visit a few model homes from time to time. Maybe—"

Jim laid his hand on the sales manager's arm. "I get you," he said. "You mean it doesn't matter just what method is used. In other words—"

"In other words, Jim, you've got the big idea!"

"I believe I have," said Jim slowly. "I haven't been very bright about this new market, have I? Now I can see where millions are being spent! My gosh—"

"It isn't just a question of brightness, Jim," his friend interrupted. "You're up against a new type of market, as I see it. An entirely different kind of market than you ever had before. And it takes any man considerable time to adapt himself to as great a change as has come to the building market, as I see it, from what you've told me about your business."

Jim started the car and for several minutes neither man spoke. Finally, the sales manager broke the silence. "There's one other thing, Jim," he said. "I guess you've heard me talk to our salesmen—"

"You bet," Jim agreed. "Always enjoy hearing you."

"Well, Jim, there's one theme you've heard me pound, then, because I make it a big point in every talk I make. That's the insistence that our salesmen give service—service beyond what the customer may expect—almost service without any reasonable limit."

"Yes," said Jim. "I've thought you over—did that, sometimes. But maybe that's a

hobby with you—that service stuff."

"Not at all," said his friend. "I've found out that extra service brings in extra business. I remember one time, when I was district manager out in the Kansas City office, one of my salesmen suddenly started to head the list. I wanted to find out how he did it; so I made a dozen calls or more among his customers. The first man couldn't say enough good things about that salesman because he'd helped the dealer work out a little sales plan to move some old stock—stock from another manufacturer not a competitor of ours. The second dealer heaped praise on this salesman because he'd helped locate a job for that dealer's brother-in-law. The third customer was grateful because the salesman helped him locate an accountant who came in two days a week to keep the books in good shape—"

"Don't see where all that service helped sell more of your line," commented Jim.

"It did," the sales manager assured. "Those dealers wouldn't think of buying our line from anybody but that salesman who had done all of them some kind of favor." He paused to light a cigar. "Seems to me that rule of service ought to work out in the building business, too," he added.

"Oh, I always give service on any jobs I have," Jim said. "If a door sticks, I'll send a man over to fix it."

"You don't get the point, Jim," said his friend. "What I mean is this: Suppose you don't handle electric work—or plumbing work—or painting—"

"I don't," said Jim. "What's more—I don't intend to."

"Our star salesman didn't go into any other business, either," said the sales manager, smiling. "But he didn't miss any of the business in his own line, Jim. What I really want to get across is this: If you help a man when he only has a leaky pipe to be fixed—that man will remember you when he wants to build a house!"

Jim sat up straighter. "Shot number four!" he exclaimed. "Again you're right—if I help people get their homes in fine shape—even if they're only thinking of things I don't handle—I'll get their repair and modernization business along other lines!"

"That's it," said the sales manager. "It's a very old

(Continued to page 84)



Business building in process of modernization in Newark, N. J. This job was done by The Globe Home Improvement Co. of Newark.



FRONT VIEW of the remodeled duplex apartment at Corinth, Miss. Both apartments were rented before remodeling was completed. Thomas H. Johnston, Jr., Architect.

Skillful remodeling produces

Modern Duplex Apartments

SKILLFUL remodeling of an ordinary frame five-room house in Corinth, Miss., proved profitable to everyone concerned. Before completion two apartments were rented at \$40.00 per month each. Thomas H. Johnston, Jr., the architect, did a creditable job that shows his skill and ability, and the contractors, Galyean Bros., benefited by a very worth-while bit of work.

Remodeling was completed Sept. 15, 1934, at a total cost, including the architect's fee, of \$4,725.00. The old structure was dilapidated, a poor income producer. The new structure is a very attractive Pennsylvania

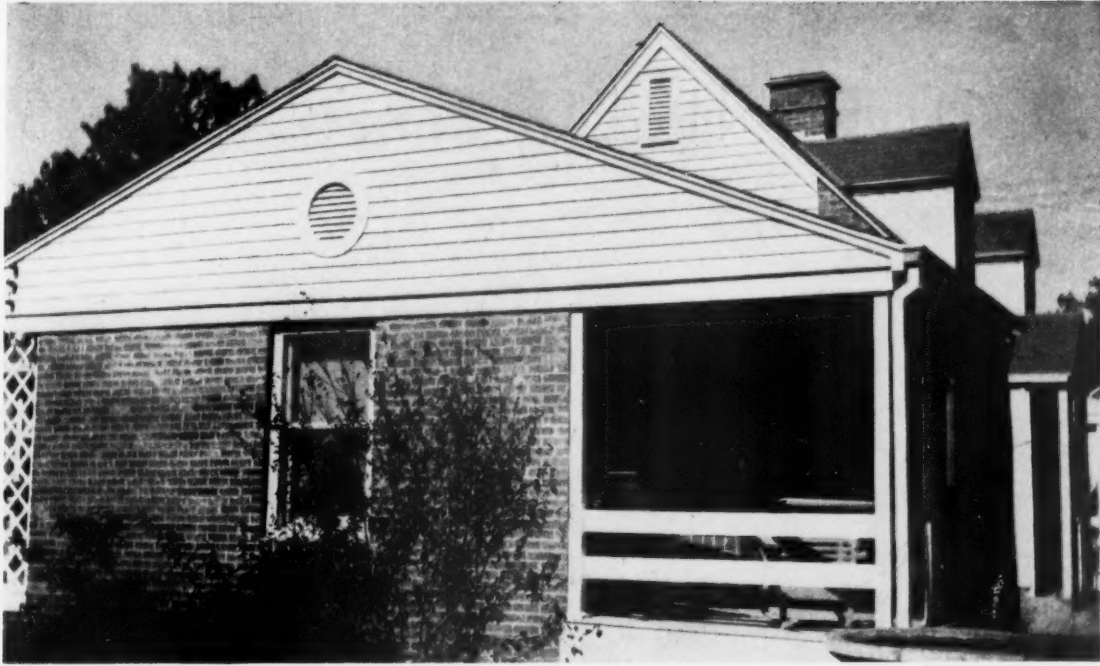
Colonial which attracts high type paying tenants.

The first move was to jack up the building, knock out the old foundation and roll the old structure from its present site back about ten feet. New foundations were then laid out and put in place and new basements were excavated to receive a warm air heating plant for each apartment.

The present porch was removed and in its place a front entry of early Dutch Colonial type was designed to replace it and form a new entry for both apartments. Additional rooms were added on each side, giving a new kitchen and dining room, bedroom and bath



VIEW OF NORTH SIDE OF REMODELED HOUSE at Corinth, Miss., showing attractive porch and gable details in Pennsylvania Colonial style. Contrast this view with the north side before remodeling, illustrated on opposite page. Roof lines were rebuilt to improve looks.



SOUTH ELEVATION of duplex after remodeling showing the attractive detailing of porch and gable. Wide single-plank rails, slender columns are used.

on the south side and a new kitchen and bedrooms on north side.

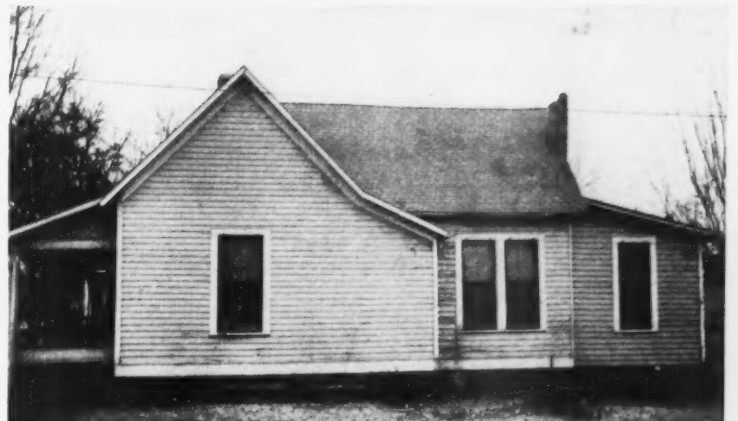
Inside stairs were worked out in the old hall, leading to the basements and the dividing wall between the apartments the entire length of the building was filled with sound deadening material. Ample closets were worked out for the new bedroom and were taken from the old hall space. The old front bedroom on the south side was used for the new living room with a door leading onto new porch adjacent to it. The old living room and dining room on the north side retained their original use, and a new porch was built, opening from the living room.

Hardwood floors were laid throughout, except in the baths and kitchens where asphalt tile floors in colored patterns were installed. All the walls were covered with gypsum board, the joints filled and sanded, and the whole papered in bright Colonial patterns. The entire overhead of the whole building was insulated against heat with rock wool. All the woodwork, both old and new, was finished with white enamel.

Each side of the house became a complete unit, with a living room, front porch, dining room, a complete electrical efficiency kitchen, two bedrooms with a bath between, ample closet space, with each apartment having its own heating plant, basement and garage.

The roof lines were changed so that the new addition to the old structure could be roofed harmoniously as a whole with new moss-green composition shingles. The neat, simple details of the "Dutch Valley of Pennsylvania" were used; notably, the wide single plank rails around the porches, slender columns, the lack of a cornice and the supporting brick piers at the corners so typical of the early Dutch. Salmon colored brick were used to veneer the entire structure and was combined with dark green shingles and batten blinds, white trim and gables. Both apartments were rented before completion, at \$40.00 per month each. For an investment of \$4,724.70, which included the architect's fee, the owner feels that he has a splendid piece of property and a good return on his investment.

TWO VIEWS BEFORE REMODELING

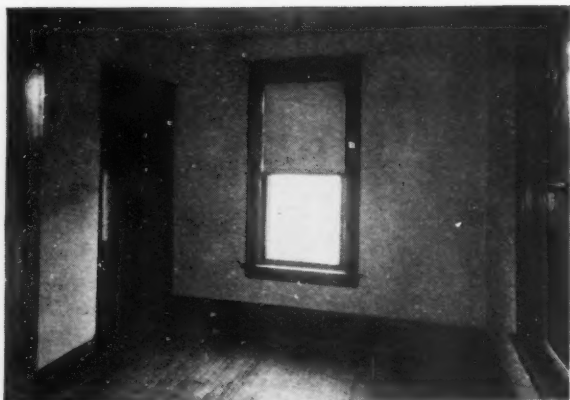


BEFORE REMODELING THE NORTH SIDE of the old house at Corinth, Miss., looked like this. It did not attract a high class of tenants and was not an asset to the community. Architect Thomas H. Johnston, Jr., visualized for the owner what could be done with the old house, and as a result it was converted into an attractive Pennsylvania Colonial duplex.



HERE IS THE FRONT VIEW of the old structure—a typical old house with old fashioned plumbing and heating, and no architectural style.

MODERNIZED INTERIORS

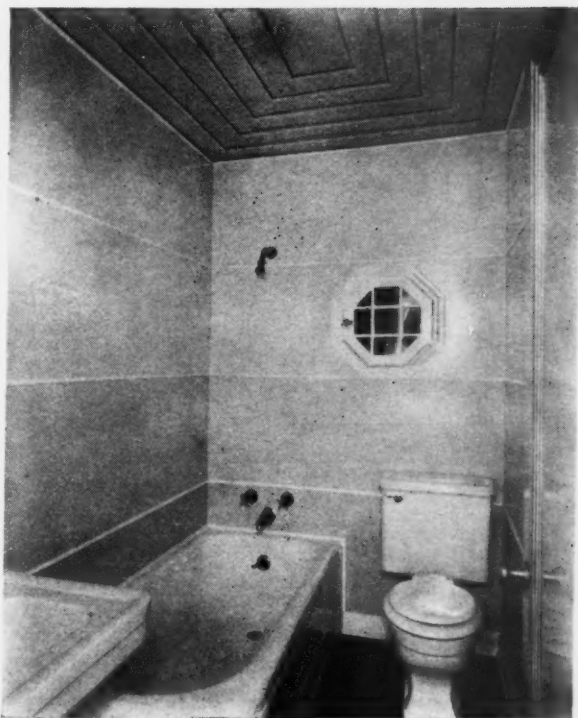


A CORNER of the old living room before modernizing.

THE APPEALING AND COMFORTABLE living room shown below was produced from the barren room pictured at left. The entire house was run down and out-of-date. The living room below was finished in pine paneling with fiber board ceiling that deadens sound and gives a pleasant patterned effect. The fireplace and mantel are handled with skill, and are worthy of study. The carpeted floors give warmth and color to the paneled room.

THIS IS ONE OF THE MOST INTERESTING DISPLAYS of rebuilding of an old house—it was done in St. Paul last summer by Contractor Paul Steenberg, sponsored by the First National Bank. This little modernized demonstration house attracted great attention, and has done much to stimulate home building in the Northwest.

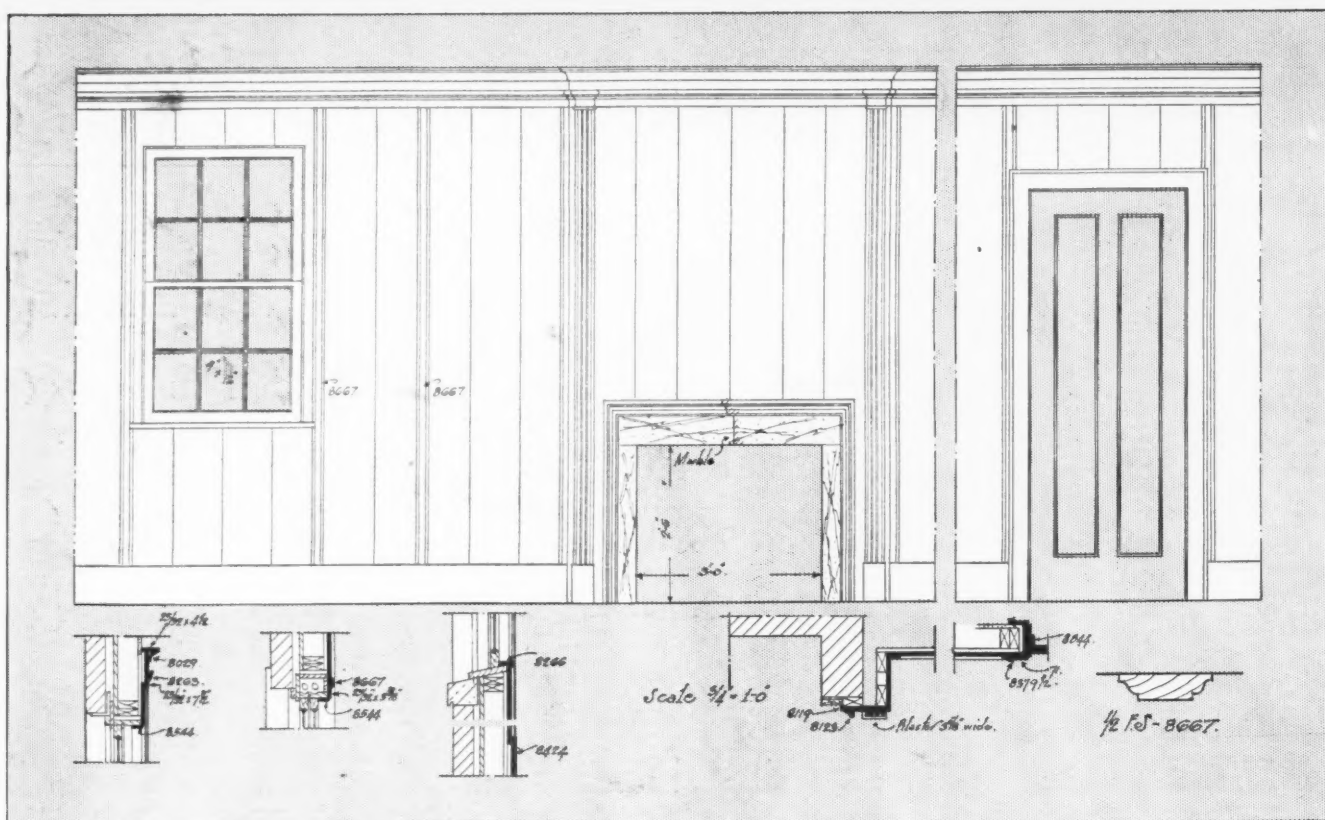




New Materials—New Effects

DEMONSTRATION MODERNIZING HOMES are bringing out uses of many new materials in interesting fashion. The remodeled bedroom den above is finished in vertical rigid fiber board planks with beveled edges. The planks are of random width and variegated colors providing a soft, light-colored, pleasant interior. This same material is used on the ceiling. The inside corner door shown is also worthy of study as it is of very modern, simple design with narrow trim. All mouldings and trim have been kept very simple and inexpensive in this room.

AT LEFT IS SHOWN A MODERN BATHROOM in the St. Paul modernized house. This is finished in a panel material with hard, glossy surface which is easy to keep clean. The horizontal joints are carried out in an interesting way, and the relief ceiling treatment is unusual and interesting. These interiors were viewed by thousands of people, and attracted much attention.



DETAILS FOR A paneled interior as designed by the Arkansas Soft Pine Bureau are shown above. The various sections, such as the door detail, window detail, paneled portions, may be repeated as necessary. Mould-

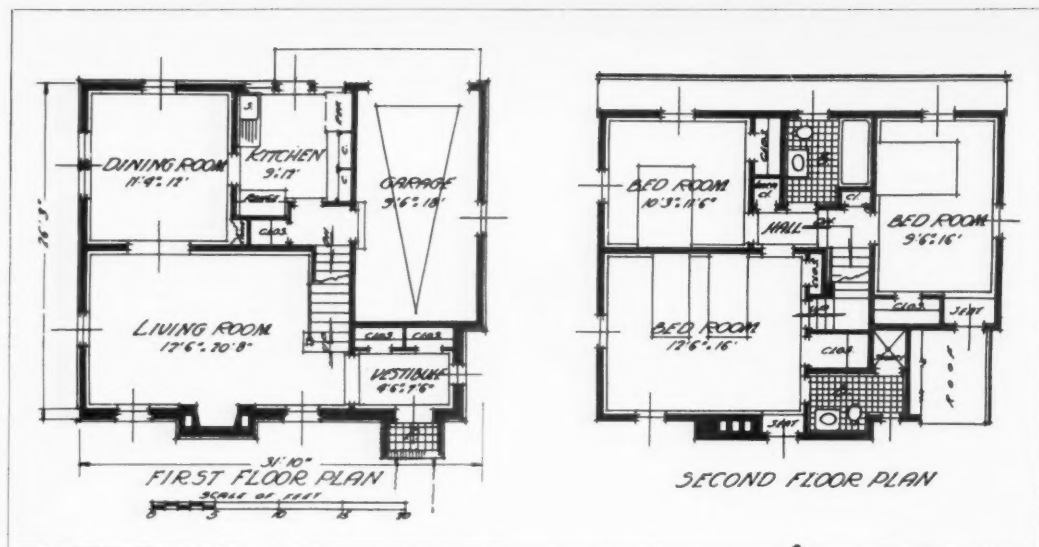
ing numbers refer to the 8000 Series Moulding Book. Standard 1x8 or 1x10 pieces may be used with or without bats. The panel stiles and pilasters are of stock sizes, available in most lumber yards.



R. C. Hunter, New York, Architect

HOMES MUST LAST

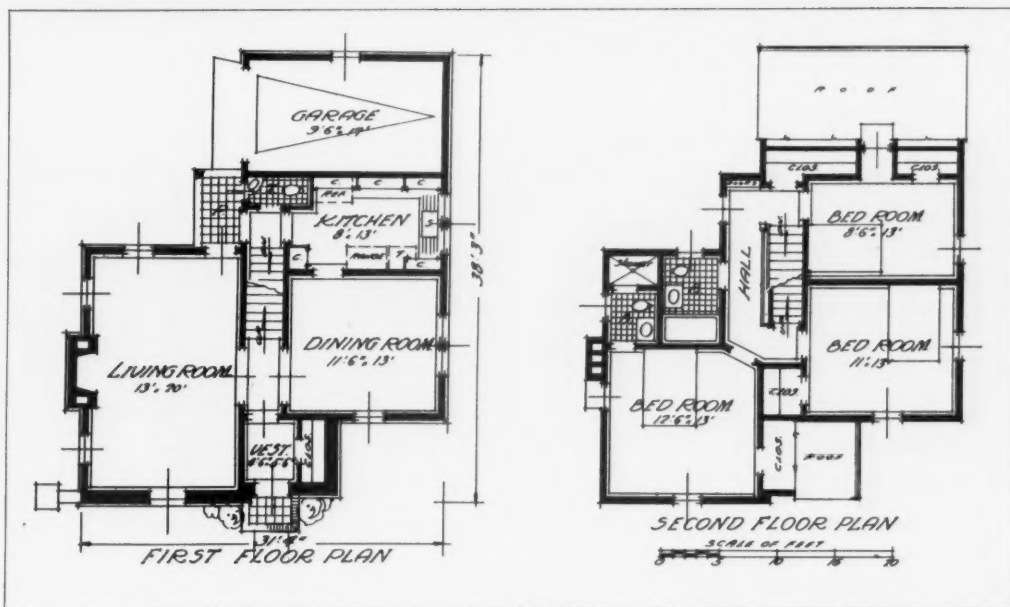
NOT A FEW YEARS OR TEN YEARS, but a **LIFETIME** is the span of years of most houses. They must be built to last. Under long-term FHA financing, good design, sound construction, careful planning that contribute to permanency are more than ever required. The houses shown in this issue are such houses. Detail above is a home in Rochester, N.Y., designed by Architect R. C. Hunter. Plans and further information are given on the following pages in which several of Mr. Hunter's recent homes are shown.



Cost key is 1.637-116-
645-28-24-14.

Built-in Garage Good Floor Plan

THE GARAGE IS MADE A PART of this home and is well fitted into the exceptionally fine floor arrangement. The living room, stairway, vestibule plan is good, giving real spaciousness without wasting space. Three bedrooms and two baths are provided, although the size of the house is only 26'3" x 31'10".—R. C. Hunter, New York, Architect.



Brick and Shingles

NATURAL STONE, shingles and stucco are attractively combined in this design by R. C. Hunter. The large living room has windows on three sides. Toilet off kitchen is a good feature. Cost Key is 1.813-139-738-32-26-16.



How To "Shrink-Proof" Wood Construction

By FRANK R. WALKER

TO MOST home owners and builders, "settlement of the building" is just one of the inevitable results of building that must be expected by the owner with more or less fear and trembling while clinging to the hope that the final results will not be too disastrous.

This so-called "settlement of the building" usually makes its appearance through unsightly and damaging plaster cracks in the corners of rooms, at walls and ceiling intersections and at the tops of door openings. It ruins costly wall decorations, causes doors to stick at the tops and sides and the floors to slope or "sag" toward the center of the building—it results in damage that is practically impossible to repair satisfactorily, regardless of cost.

While this damage appears only on the surface, it is really much deeper and more serious; because it is the direct result of faulty methods and structural weakness.

While it is true that a small percentage of this damage may be due to inadequate foundations, by far the greater proportion is due to the improper use of lumber used for supporting the structural portions of the building—in other words, most of this "settlement" damage is directly attributable to lumber shrinkage.

Lumber shrinks in width and thickness; but the shrinkage lengthwise is negligible. So, to eliminate all of the costly damage caused by lumber shrinkage, avoid the use of side-grain bearing lumber. For instance, when a wood girder is used through the center of the house to carry the first floor joists, the joists in turn support the first story

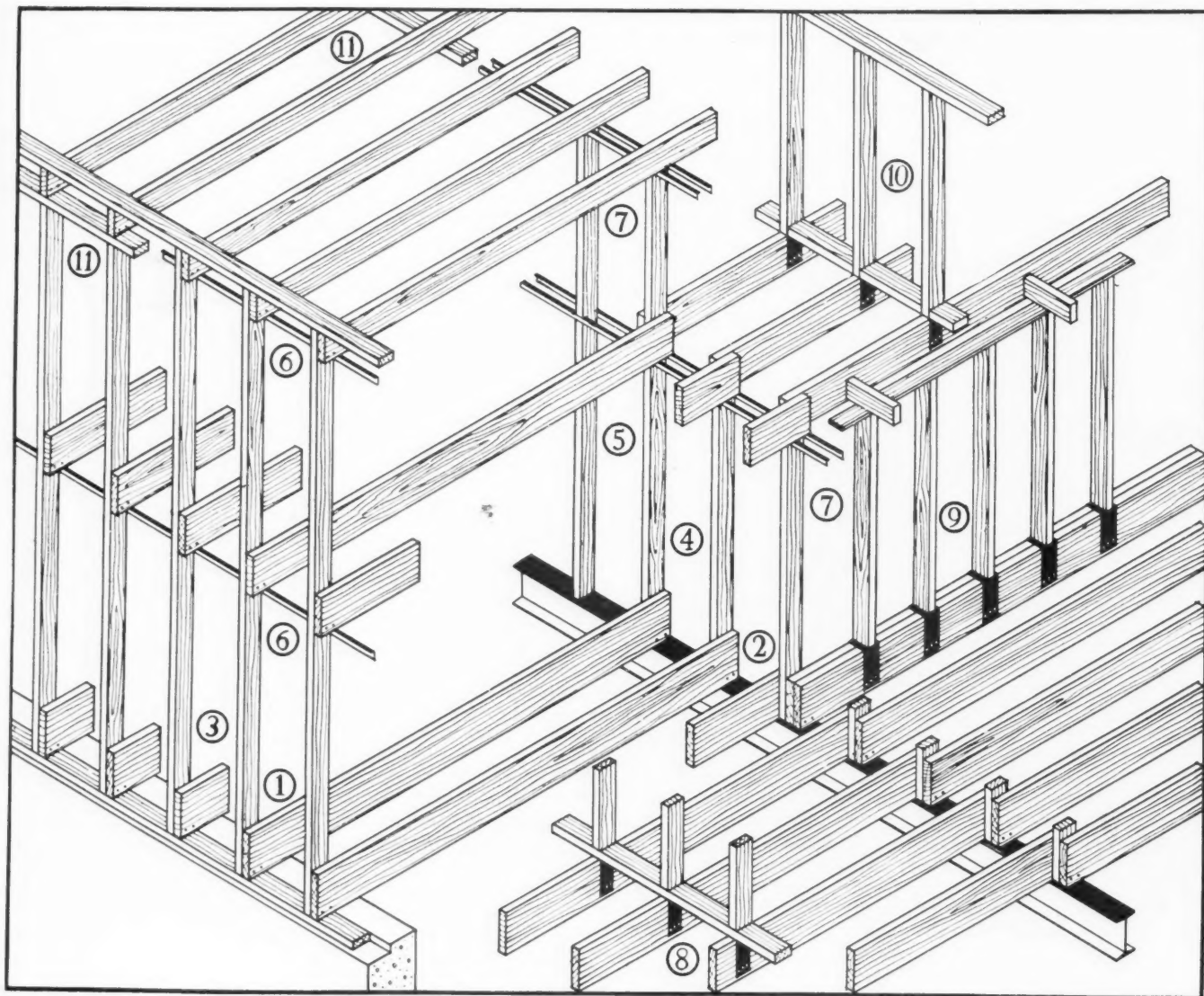
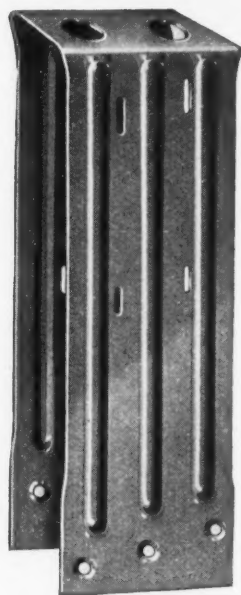


Figure 1. Method of Framing Wood Buildings to Eliminate Shrinkage Damage.

bearing partitions. There are 17 to 21 inches of side-grain bearing lumber in the wood girder and first floor joists alone and the shrinkage possibilities are tremendous, with the result that the first story partitions, the second floor joists, the second story partitions and the second story ceiling joists all settle down equal to the amount of shrinkage in the wood girder and floor joists. This may vary from $\frac{1}{2}$ to $\frac{3}{4}$ -inch, with the result that the entire interior of the house sags toward the center, causing unsightly and damaging plaster cracks, ruined decorations, sagging floors, doors sticking at tops and sides, cracks opening up in the joints of casings and in other ways damaging the whole interior of the building.

For years it has been customary to set all interior wood partitions on top of the wood floor joists. This is very bad practice because the greatest amount of shrinkage usually occurs in the joists—and when the joists shrink, down come the partitions and everything bearing on them, resulting in more serious and costly damage.

A new and inexpensive method of "shrink-proof" construction has been developed that overcomes this structural weakness and eliminates all of this serious damage to buildings using wood floor joists and partitions. This new method uses light pressed steel members to support and reinforce the wood framing at vulnerable points. For instance, instead of using shrinkable wood ribbons on the outside stud walls to carry the second floor and ceiling joists, non-shrinkable steel ribbons are used. Instead of using shrinkable wood plates at the top of in-

terior bearing partitions, non-shrinkable steel plates are substituted, with the result that all shrinkage in the length of the outside stud walls and interior bearing partitions is eliminated.

This method is exceedingly simple and effective as no special framing is required. For instance, in Fig. 1, the first floor joists are set in the regular way with the outside ends of the joists (1) resting on the foundation walls and the inside ends of the joists (2) on a steel I-beam or wood girder, preferably a steel I-beam. The outside stud walls (3) are set on a wood foundation plate (not on top of the joists) and extend the entire height of the wall in one length.

The first story bearing partitions (4) supporting the second floor joists, rest directly on the steel I-beam (not on top of the floor joists) and extend to the second floor.

Where the second story partition is directly over the first story bearing partition, the studs may run straight through in one length, as shown in (5) and (7), thus all shrinkage in the length of the outside stud walls and interior bearing partitions is eliminated.

This "shrink-proof" joist support or ribbon is a small angle shaped member of steel which is attached to the exterior studs by making a small saw-kerf about $\frac{3}{4}$ -inch deep and $\frac{1}{8}$ -inch wide in the face of the studs, as illustrated in Fig. 2 (A) and (B). The wood joists bear directly on the steel ribbon Fig. 1 (6), and by bearing on steel, they cannot drop any lower than originally placed.

The interior bearing partitions use two (2) of the steel angle members at the top of the studs instead of wood bearing plates, with the result that the second floor or ceiling joists resting on steel cannot drop any lower than originally placed. This is plainly illustrated in Fig. 1 (5) and (7) and Fig. 2 (C).

Instead of setting the partition studs on top of the wood floor joists, as has been customary for years, an inverted "U" shaped metal shoe is placed over the joist, so that the top of the metal shoe bears down tight on the top of the joist.

On each side of the shoe there are 3 small holes near the bottom and 2 oblong slots near the top. The nails driven through the bottom holes of the shoe into the joist support all the weight, while the nails driven in the oblong slots near the top hold the shoe in close to the joist.

All first story dividing partitions, Fig. 1 (8) and (9) and all second story partitions (10) are set on top of these metal shoes, which are placed over the joist and secured at the bottom, so that any shrinkage of the joists is from the top and does not affect the partition studs resting on the metal shoes, which are held at their original height. No matter how much the floor joists shrink the partition cannot settle with them because it is held at its original height by the steel shoes.

The partitions are erected in the usual manner, using a kiln-dried wood bottom plate, as shown in Fig. 1 (8); or they may bear directly on the steel shoes, as illustrated in (9) and (10).

All shrinkage of the joists at the floor line is concealed by nailing the wood base shoe into the wood floor instead of into the base board, as shown at left.

This method of construction may be used on wood frame buildings, brick veneer buildings or buildings having exterior masonry walls and wood floor joists and partitions. It is exceedingly simple and inexpensive, the cost varying somewhat with the length of the exterior walls and interior partitions.

These "shrink-proof" metal shoes are furnished for 2x8, 2x10 and 2x12-inch joists, also for joists doubled under partitions, i. e., 4x8, 4x10 and 4x12-inch joists and are to be distributed through the retail lumber dealer.

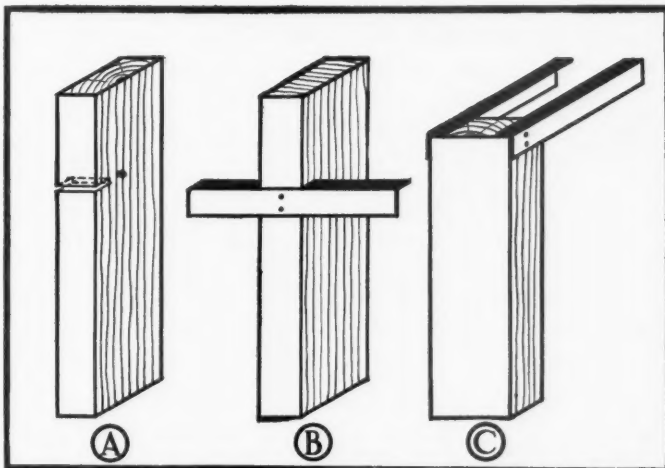
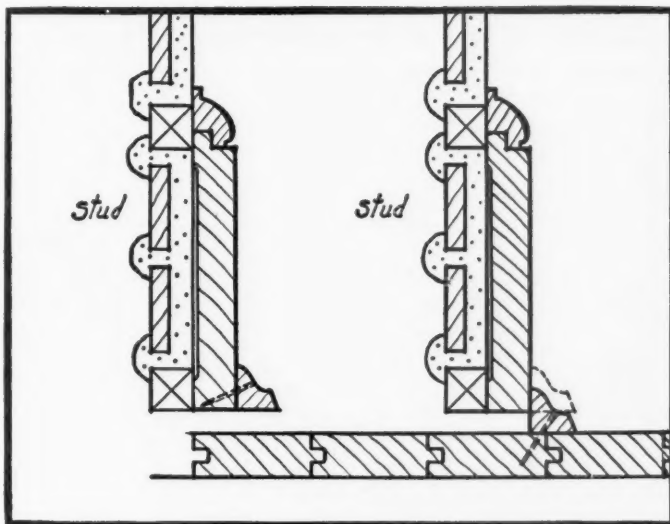


Fig. 2. Methods of Attaching Metal "Shrink-Proof" Joist Supports.



Wrong Way Right Way
Fig. 3. Two Methods of Nailing Wood Base Shoe.

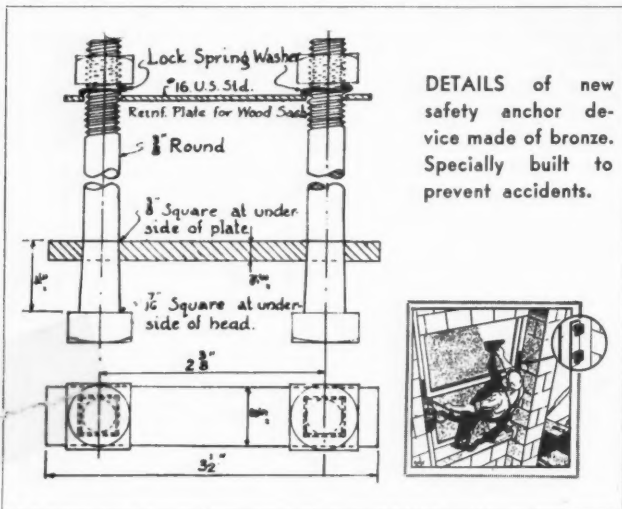
NEW PRODUCTS

FOR FURTHER INFORMATION about any new product write the American Builder Information Exchange, 105 West Adams Street, Chicago, Ill.

4-Bolt Window Anchor

THE four-bolt security window cleaning safety device as manufactured by the Harrison-Weise Company, Builders Building, Chicago, including bolts, plates, spring lock washers and nuts, is made of cold rolled U.S. Naval Bronze.

The method of fastening each of the anchors to the different kinds of window frames is by means of two $\frac{3}{8}$ -inch bolts bolted to each side of the window frames and secured to the inside by means of plates, spring lock washers and nuts.



DETAILS of new safety anchor device made of bronze. Specially built to prevent accidents.

Basement Floor Paint

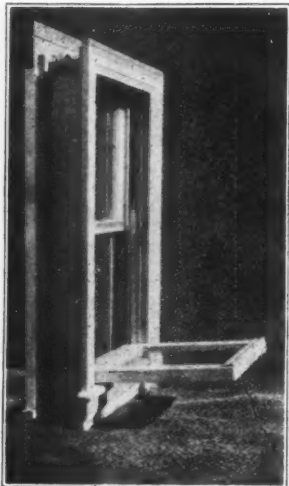
FOR YEARS, attempts to paint basement floors have met with poor results due to the fact that moisture penetration from below caused painted surfaces to blister and peel.

A new development by the Master Builders Company, Cleveland, known as "Super-Colorseal," a rubber-base colored finish, is offered after two years of research, as a practical method of painting basement floors in residences, stores, churches; also for power houses and other concrete floors directly on the ground.

A moisture-proof seal coat is first applied to the floor. "Super-Colorseal" is applied with a brush 24 hours later. Moisture penetration from below is stopped and the finish is tough, resistant to scuffing. It is available in eight colors.

Novel Window

A PRACTICAL double-hung pivoted window that can be washed or reglazed from the inside without removing the sash has been produced by the Howard Safety Window Company, Milwaukee. The window is constructed, completely assembled and equipped with rust-proof hardware, with or without metal weatherstripping, at the factory. Delivered thus, it insures simplified installation and a perfect fitting weather-tight window. By pulling out the spring stop at the side of the sash which releases it to rest on the lower sash, the window opens flat for cleaning. It is easily removed.



MODERN STORE INTERIOR has latest lighting equipment. Intensity of light is controlled by "electric eye" in pillar.

Automatic Store Lighting

WALLACH BROTHERS' new Fifth Avenue store in New York City is not only ultra modern in lighting, but adds the final touch of automatic control with "electric eyes." Westinghouse Photolux controls, inconspicuously recessed in walls and pillars, maintain the general illumination at a constant level of 20 footcandles.

Ceiling fixtures, designed in rectangular style to harmonize with the modern motif of the interior decorations, provide good direct lighting. Three 200-watt Mazda lamps in each fixture provide adequate intensity, while three prismatic plates assure an even distribution of light throughout the store.

Each of two Photolux units controls one lamp in each fixture on every floor. The third lamp burns constantly throughout the day because daylight never reaches indoors thoroughly enough to forego artificial light entirely.

Starting the business day, a master switch is thrown to light all three lamps in the fixtures. As daylight intensity increases during the morning, an "electric eye" notes the changes and turns off one of the lamps in each fixture. Towards midday, still less artificial light is required, and a second lamp automatically turns off. Should daylight dip suddenly during a storm, the "electric eyes" are always on the alert, and back on come the lights. Interior illumination constantly hovers around the 20 footcandle level.

Efficiency Sink

IN KEEPING with the trend of modern requirements, Crane Co., Chicago, has placed on the market a new kitchen sink for installation in small homes and apartments. It lends itself well to the demand for compactness and working efficiency in kitchen layouts.

Made of cast iron with all exposed surfaces porcelain enameled, regular or acid-resisting, of the double drainboard type, 60 inches long x $25\frac{1}{4}$ inches wide, with 8-inch back which permits installation below a window, this sink packs the utmost of utility into a given space. The basin is 22x18x8 inches deep and comes with waste having removable cup strainer.

AT LEFT is shown new double-hung pivoted window which lies flat for cleaning.

AT RIGHT, kitchen sink unit designed for small homes and apartments to save space, provide efficient layout.





BRIXMENT FOR STUCCO

THE same advantages that make Brixment superior to portland cement and lime for masonry make it *equally superior to these materials for stucco!*

Brixment stucco is similar in appearance, strength and wearing qualities to portland-cement stucco because, like portland, Brixment is a *true hydraulic cement*. It is water-proofed, increases in strength with age and withstands the test of time as only a true cement can.

The well-known plasticity of Brixment mortar permits easy application in *leaner mixes*. This eliminates the bad shrinkage cracks, hair checking and crazing so commonly caused by the rich mixes necessary to give portland-cement mortar the necessary working quality.

The slower hardening of Brixment mortar gives the plasterer more time to make his joinings, thus avoiding at these points the characteristic discoloration of fast-setting portland-cement stucco. The calcium stearate in Brixment gives that water-proofed quality so desirable in stucco.

The lower price of Brixment and the leaner mix make the cost of materials decidedly less than when mortar with a large content of portland cement is used. *But even greater economy is obtained from the smooth-working quality of Brixment mortar which results in the faster, easier application of the stucco.*

Brixment can be applied over any kind of masonry backing (brick, tile, concrete, etc.) or over any kind of metal lath or reinforcing. It should not be applied over any type of wood lath.

The proper mix for all coats is one part Brixment, three parts sand. When so mixed, four bags of Brixment will cover approximately 15 square yards of wall surface with stucco one inch thick.

LOUISVILLE CEMENT COMPANY, *Incorporated*, LOUISVILLE, KY.
District Sales Offices: 228 North LaSalle Street, Chicago; 600 Murphy Building, Detroit
101 Park Avenue, New York. . . . Mills: Brixment, New York and Speed, Indiana

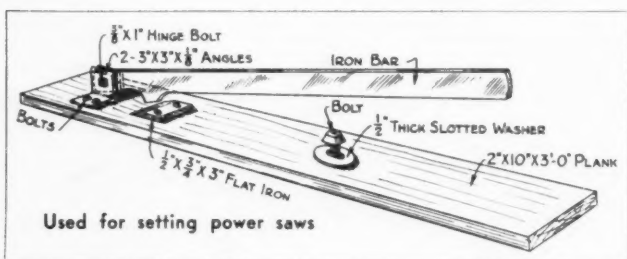
PRACTICAL JOB POINTERS

A READERS' EXCHANGE of tested ideas and methods, taken from their own building experience. Two dollars or a year's subscription to American Builder is paid for each item published. State business connection or trade.

Practical Saw Set

I HAVE read the AMERICAN BUILDER for over eight years and have derived much help from the Job Pointers published each month. So I am sending this sketch of a saw set which has proved very practical and efficient for setting power saws of any size or set.

No. 1 is a 2"x10"x3'0" plank for base; No. 3—two 1/8"x3"x3" angle irons bolted to No. 1 and to act as hinge for No. 2; No. 4—3/8"x1" hinge bolt; No. 5—1/2"x3/4"x3" flat iron screwed to base, beveled to shape saw teeth. Cut a slot for bolt No. 6 to adjust for different size saws. No. 7—washer 1/2" thick.—WM. H. PREHM, General Carpenter, Contractor and Builder, Lake Zurich, Ill.

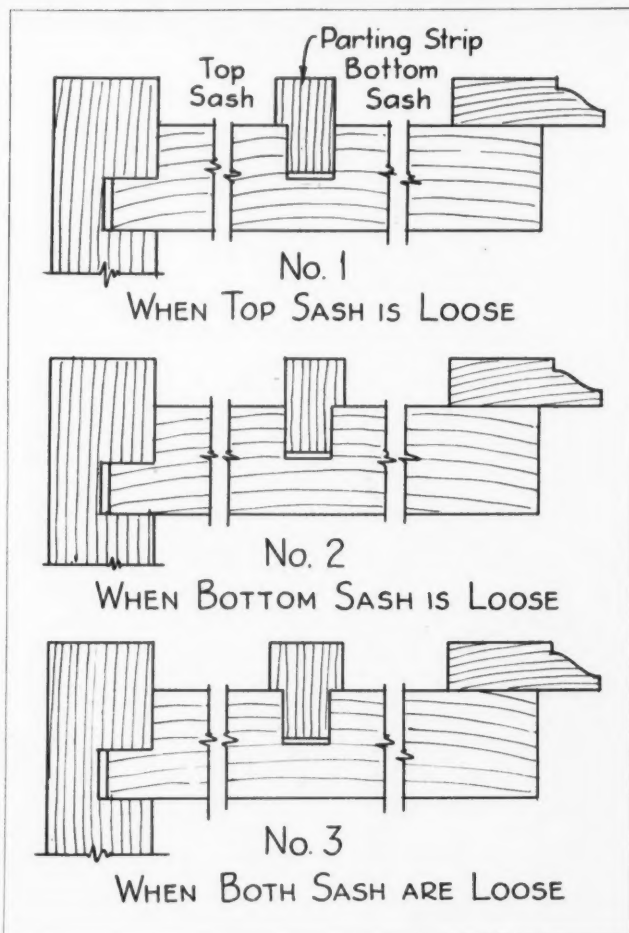
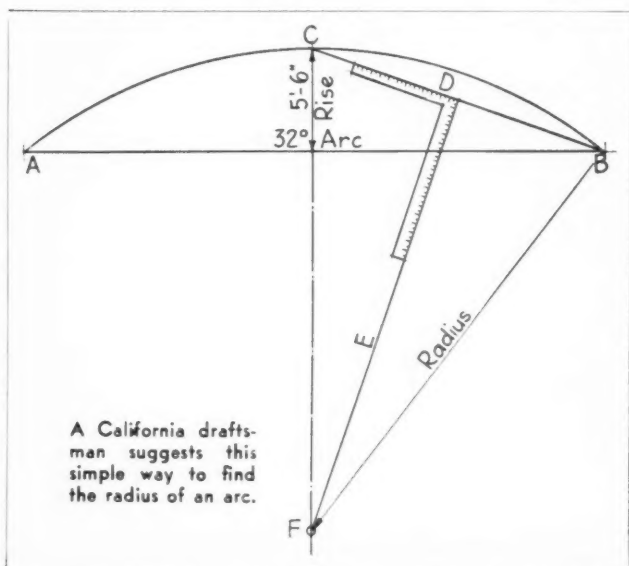


Simple Arc Method

REFERRING back to AMERICAN BUILDER, February 1932, page 70: one of your readers goes into an involved method of finding the radius of a certain arc of a circle. Complicated figures are too liable to produce the wrong answer on account of the ease in making errors. My method is simplicity itself and accurate, too. Here it is:

Lay out the points A, B and C using any scale; 3/4" would be good when accurate work is required.

Connect B and C; drop perpendicular from the measured center of B-C until it intersects extended rise from C. This will establish F. F to B to C or to A is the radius.—ROY V. ISH, Draftsman & Supt. of Construction, San Jose, Calif.



Stopping Rattling Windows

I AM sending a kink that I have found very useful in remodeling. Tightening loose windows might involve a lot of work if not done in this way.

Remove the old parting strip, and after deciding what thickness needed to make the window tight and smooth-running again, make another parting strip of the correct thickness to install. As the plow for the regular parting strip is most always one-half inch, I have to rabbet the inserted half of the new strip to fit the plow as follows:

If the top window is the one that needs the greatest filling, I rabbet the strip as shown in No. 1. If it is the bottom sash that is the offender, I reverse the rabbet, as in No. 2. However, if the two sash are loose I fix them by installing the parting strip as in No. 3, and have saved quite a lot of otherwise pulling down and rebuilding. I have personally found this a handy kink for this work. While I don't claim this as original, there may be a lot of mechanics that never heard of it. The rabbeting will best work out on a power saw.—JAMES A. BATTERS, Contractor and Woodworker, Waterbury, Conn.

* * *

3 Useful Hints


FOLLOWING are three useful hints I have used very often with much saving in time:

1st—In laying flooring, especially long lengths, after driving up floor at joint for three or four feet I drive nail and set lightly as necessary; then drive nail head towards joint until tight. This saves going to end of piece to drive up tight.

2nd—When it is necessary to splice moulding with no miter box handy, I get approximate length I need and place the two pieces back to back and saw at an angle of about 45 degrees. When turned, they will fit perfectly. Then cut to length.

3rd—When cutting metal lath which has to be fitted fairly accurately, I take two large headed roofing nails and nail lath to a two-by-four or any lumber handy so that the edge to be cut is directly over edge of said board. In this way it won't slide around, and a neat, straight cut is obtained.—HAROLD L. DINGEE, Contractor, Clintondale, N.Y.

An Invitation to Every BUILDER Who Wants to Reduce His Hauling Costs

FORD  TRUCK

Your Ford dealer invites you to try his New 1935 Ford V-8 demonstrator truck with your own loads . . . on your own routes . . . with your own driver at the wheel. Call him today and arrange for an "on-the-job" test.



THE ONLY TRUCK AT ANY PRICE THAT GIVES YOU ALL THESE FEATURES

NEW LOAD DISTRIBUTION for better braking and more uniform tire and brake wear. . . . NEW DRIVER COMFORT, driver's compartment completely lined, triple ventilation system, instruments grouped directly in front of driver. . . . NEW QUICK-STOPPING, RIB-COOLED BRAKES, longer life between adjustments, will not "bell-mouth" or "fade." . . . NEW CLUTCH, lower pedal pressure at idling speed, plate pressure increases by centrifugal force as engine speed increases, minimizing slippage. . . . NEW CRANKCASE VENTILATION reduces corrosion and oil dilution. . . . NEW COOLING EFFICIENCY, larger radiator, larger water pump impellers. . . . 80-HORSE-POWER V-8 TRUCK ENGINE uses no more fuel than a "four." . . . FULL-FLOATING REAR AXLE with straddle-mounted pinion. . . . FULL TORQUE-TUBE DRIVE permits free-shackling of semi-elliptic rear springs. . . . DEEP, RUGGED FRAME with no "kick-up." . . . LOW-COST ENGINE EXCHANGE PLAN saves time, saves money. . . . SKIRTED FENDERS in colors that match the hood and cab. . . . BAKED ENAMEL FINISH.

THERE's one SURE way to find out whether a truck will do the job you expect of it. That's by testing it with your own loads, over your own routes, with your own driver at the wheel. Ford dealers have such complete confidence in V-8 Performance and V-8 Economy that they are ready and willing to place a 1935 Ford V-8 Truck at the disposal of any responsible builder who wants to save money on his hauling costs.

Borrow your Ford dealer's demonstrator truck. Use it in place of one of your present units. Make your own tests of V-8 Performance and V-8 Economy. Consider the Ford Low-cost Engine Exchange Plan and other exchange privileges that assure welcome savings in maintenance costs. See how Ford has built into this new truck ALL the features needed for BOTH hauling and delivery service. Then look at the price! You will be convinced once and for all that the 1935 Ford V-8 Truck is now more than ever AMERICA'S GREAT TRUCK VALUE!

THE 1935 **FORD V-8 TRUCK**

5-YEAR TEST PROVES WHAT HOUSE PAINT



GIVES BEST SERVICE

(Mail coupon for complete photographic story)

Left: Inspection of house painted with Eagle Pure White Lead in sensational paint test. This paint gave excellent service. House was not repainted for 5 years. Other paints tested had to be retouched in less than 2 years.



Right: Community of 100 homes where impartial paint test was made by real estate management. Town was divided into 3 sections. Three kinds of paint were used. One paint—Eagle Pure White Lead—gave outstandingly superior service.

● When paint cracks and peels after one or two years, it can ruin a good contractor's reputation.

Now, fortunately, the guesswork has been taken out of choosing paints. An impartial 5-year test just completed on a community of 100 homes in northern Indiana proves what paint gives lasting protection at reasonable cost.

Three leading kinds of paint were used in this dramatic paint test. Two of the paints failed in less than two years. But the third paint—Eagle Pure White Lead—gave good service for five years!

The first cost of Eagle Pure White Lead was approximately the same as the other paints. But because it wears down by a gradual chalking process (instead of cracking and peeling), Eagle Pure White Lead proved far more economical in the long run.

Get the facts about this longer-wearing paint today. Mail coupon for complete, dramatic story of the Indiana Community Paint Test.

EAGLE pure WHITE LEAD



Boost the
Better Housing
Program in your
community

The Eagle-Picher Lead Company, Dept. AB3, Cincinnati, Ohio.

Please send me a copy of the picture-folder that tells the complete story of the Indiana Community Paint Test.

Name _____

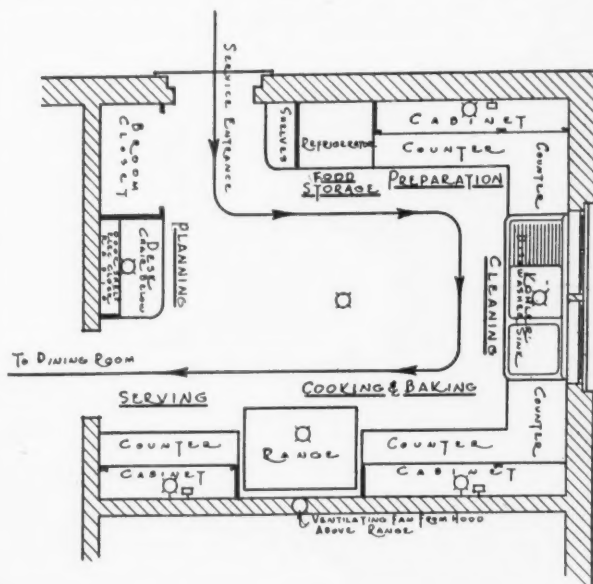
Address _____

City _____ State _____

Laying Out Kitchen

MANY home planners still fail to follow good sense in laying out kitchens. Every kitchen should be planned for step-saving, practical use by the housewife and the illustration below shows such an arrangement, providing a straight flow of production in the following sequence: (1) food storage, (2) preparation, (3) cleaning, (4) cooking and baking, (5) serving.

The food storage center near the service entrance consists of the refrigerator and shelves for parcels. Adjoining it is the food preparation counter with convenient cabinets above and below. The cleaning center occupies one wall



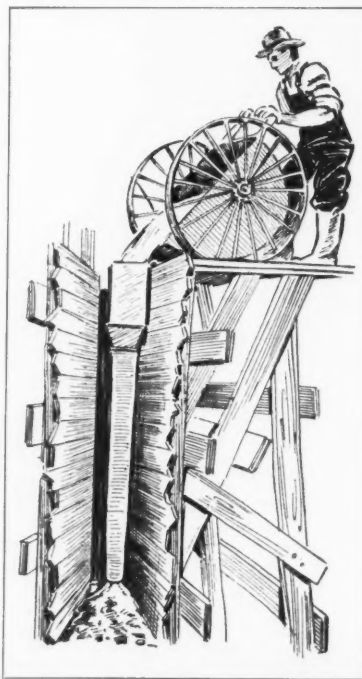
and consists of the kitchen sink and dishwasher with counters on either side. This section is important because it serves the preparation and cooking and baking center, receiving soiled dishes from both. The cooking and baking center has a range and an adjoining counter for secondary cooking, using electrical appliances and for hot dishes removed from the range. The serving center near the dining room door completes the sequence. The housewife thus traverses a triangular path in attending her duties.

Such a kitchen saves steps and makes best use of all kitchen space.

* * *

"Elephant's Trunk"

AN "elephant's trunk" is the latest device for handling concrete. It is a flexible canvas tube, by means of which fresh concrete may be placed accurately without splashing. Engineers advise using this device whenever concrete is placed from a considerable height, to avoid splashing and hardening against forms above the level of the concrete already placed, and marring the texture of the finished job. It has contributed to the fine architectural effect obtained on several notable buildings of concrete completed recently.



REO ENTERS LOWEST-PRICE TRUCK FIELD WITH NEW 1½ TON SPEEDWAGON



● Here's live, vital news for thousands of truck buyers who have always wanted Reo Speedwagon performance, power, speed and stamina—but who have heretofore been unable to pay Reo quality prices:

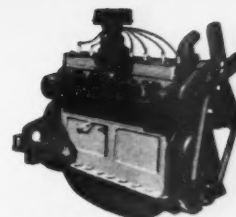
A brilliant new Reo 1½ Ton Speedwagon powered with the new Reo-built Silver Crown truck engine and featuring maximum loading space, streamline appearance and hydraulic brakes—at the amazingly low price of \$535.

Now Reo truck quality and enduring value are within reach of all. For only a few dollars more than the cost of the lowest priced truck, you get typical Reo long life, extra service and satisfaction. More important still, you get a definite Reo PERFORMANCE GUARANTEE which assures you of satis-

faction in advance of the purchase.

Reo's great new Silver Crown truck engine is especially designed by Reo engineers for fast, economical transportation of goods. Lo-Ex pistons, valve seat inserts and a score of other superb features contribute to a wide range and regularity of service that formerly called for a much higher investment.

Built for discriminating buyers who insist on quality, but must also consider price, the new Reo Speedwagon merits your immediate consideration. There is a wide range of Reo-built body-styles matched to the Reo chassis to provide a complete, coordinated Reo-built unit. You can depend on this sturdy Reo truck to do your job at lowest cost.



POWERED WITH THE SENSATIONAL NEW 6 CYL.

SILVER CROWN ENGINE REO-DESIGNED—REO-BUILT

Reo Speed wagons and Trucks range from ½ to 4-6 tons including Tractor-Trailers and Buses. Prices from \$495 up, chassis f.o.b. Lansing, plus tax. Special equipment extra.

Prices subject to change without notice.

REO

MOTOR CAR COMPANY
LANSING, MICHIGAN

STANDARD BODY TYPES FOR NEARLY EVERY HAULING NEED

This Improved FIREPLACE

is
Easier
to Build

Circulates Heat

MAKE your next fireplace a Heatilator Fireplace. You'll find it much easier to build—and a modern, efficient heating device as well as the decorative feature of the room.

The Heatilator is a double-walled metal form around which the masonry is easily built. Complete from floor to flue, it saves labor and the cost of firebrick, damper and other materials which it replaces. Yet it does not limit mantel design or the type of masonry you use.

It also saves fuel—takes the heat ordinarily wasted up the chimney and circulates it evenly to every corner of the room and adjoining rooms. It provides living comfort during chilly spring and fall weather—cuts weeks off the furnace-heating season. In mild climates and for summer homes and camps it is the only heating equipment required.

Will Not Smoke!

Your clients will appreciate this new economy and comfort. They will be enthusiastic about the trouble-free operation of the Heatilator—the fact that it does not smoke. Send the coupon today for complete Heatilator details—facts that will prove valuable to you on every job, new or remodeling, that includes a fireplace.

Heatilator Fireplace

HEATILATOR COMPANY,
913 E. Brighton Ave., Syracuse, N. Y.

Please send complete Heatilator information.

Name.....

Address.....

NEWS OF THE MONTH

Building Activities

Joseph B. Mason Becomes Eastern Editor

American Builder announces the appointment of Joseph B. Mason to the position of Eastern editor, effective March 1. Since the merger of American Builder and Building Age in October 1930, Mr. Mason has served as managing editor with headquarters in the Chicago office. After more than four years in this responsible position directly under Samuel O. Dunn, chairman of the Board, and Bernard L. Johnson, editor, Mr. Mason is now promoted to the Eastern editorship with offices at 30 Church Street, New York City. In this position he succeeds E. L. Gilbert who has resigned to take up other work.



Joseph B. Mason

Mr. Mason was born in Niagara, Wis., where he attended public schools, and was graduated from the University of Wisconsin in 1926, having followed a combined course in Civil Engineering and Journalism. He was editor of the student newspaper, The Daily Cardinal, and was the University representative of the Associated Press. Having written numerous articles which were published in the leading architectural magazines, he became editor of the Building Age (New York) in 1928, which position he held until October 1930 when that publication was merged with the American Builder.

A carpenter by trade, having worked on his first job at the age of 14, and being employed during the War on emergency housing and factory construction, Mr. Mason has specialized in architectural studies in line with his editorial work. He is a director of the Chicago Business Editors Association.

Residential Contracts Increase

NEW residential contracts for January of this year totaled \$22,410,200 as compared with \$15,110,400 in January 1934. This almost 50 per cent increase in new home building is considered an encouraging sign for 1935.

Rents Rising, Shortage Grows

RISE of real estate selling prices, especially in cities of over 500,000 population, a more active market in cities all over the country, rapid absorption of residential space including apartment space, and some measurable return of capital to real estate mortgage investment are shown in the Twenty-Fourth Semi-Annual Survey of the Real Estate Market, made by the National Association of Real Estate Boards.

The survey covers 268 cities. It is from confidential reports made by local real estate boards. Important statistical details:

1. Actual shortage of single family dwellings has been reached in more than half the cities reporting (53 per cent). No over-supply remains in any city of more than 200,000 population.

2. Apartment rents are higher than last year in 57 per cent of all cities reporting. They have gone up in every city of over 500,000 population.

3. Rents for single family dwellings are up in 53 per cent of all the cities. Higher rates are reported by 88 per cent of the largest cities (those of over 500,000 population).

(Rents for houses are still approximately 32 per cent below the 1928 level, apartment rents still approximately 46 per cent below that level, other studies of the Association indicate.)

4. Commercial banks, insurance companies and other financ-

WORLD'S LOWEST PRICES

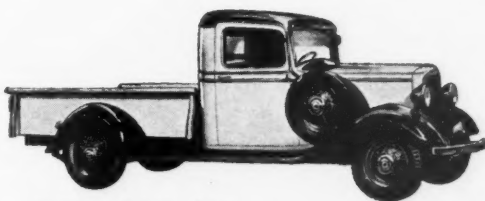


A GAIN in 1934, the insistent demand for Chevrolet products has made Chevrolet *the world's largest builder of trucks* as well as of passenger cars. And truck buyers who want to save money will find that these are not only *the world's lowest-priced trucks*, but that they are also very economical to operate and maintain, due to the excellent quality which Chev-

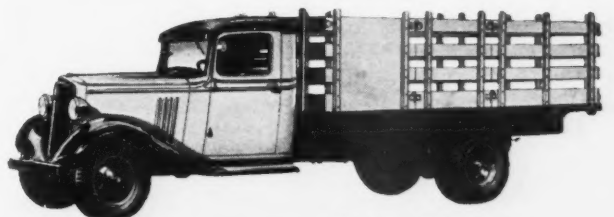
rolet builds into them. They are big—rugged—dependable trucks. They are powered by six-cylinder valve-in-head engines which use very little gas and oil. And they are extremely long-lived . . . built to do their job and do it faithfully over a long period of years. Buy a Chevrolet Truck and you buy fine, dependable, economical haulage service—at *the world's lowest price!*

CHEVROLET MOTOR COMPANY, DETROIT, MICHIGAN

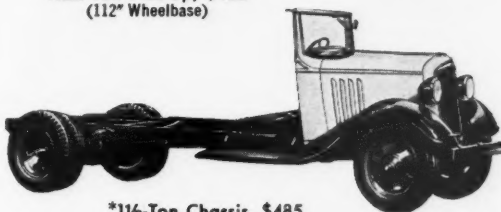
Compare Chevrolet's low delivered prices and easy G.M.A.C. terms. A General Motors Value



Half-Ton Pick-Up, \$465
(112" Wheelbase)



*1½-Ton Stake, \$720
(157" Wheelbase)



*1½-Ton Chassis, \$485
(131" Wheelbase)



1½-Ton Open Express, \$655
(131" Wheelbase)



*1½-Ton Platform, \$630
(131" Wheelbase)



*1½-Ton Stake, \$660
(131" Wheelbase)

Above are list prices of commercial cars f.o.b. at Flint, Mich. Special equipment extra. *Dual wheels and tires \$20 extra. Prices subject to change without notice.

CHEVROLET TRUCKS

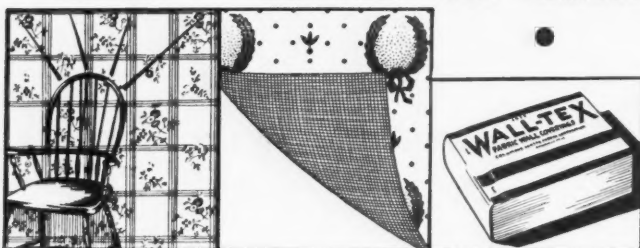
It will pay you to include WALL-TEX in your remodeling plans



Can be hung over any smooth surface

Can be washed and washed and washed

It's the modern CANVAS covering for walls



Resists scuffing and tearing

Prevents and conceals plaster cracks

More than 185 patterns—for every room

You will profit because:

1. Wall-Tex can be hung over any smooth surface (plaster or fibre-board) in addition to regular plaster. Easy to hang, no specialists are needed.
2. It gives you an opportunity to profit on decorating work.
3. Unlike perishable paper, it will outlast the loan, and has the permanence which facilitates loan approval.
4. It assures customer satisfaction, because it eliminates the grief of soiled, scarred walls and premature re-decoration.
5. As beautiful, and carried out in the same materials, as an artist's mural (pure oil colors on canvas). Every WALL-TEXED job is a constant advertisement of your work—helps to make your service more distinctive.

● Wall-Tex is a strong, flexible fabric covering for walls and ceilings on which the designs and patterns are reproduced in pure oil colors. It is as practical as it is decorative. More than 185 exclusive patterns provide ample selection for every decorative scheme—cheery, practical glazes for kitchen and bathroom, and beautiful soft-toned designs for all the other rooms.

The illustrations above show reasons why the public is demanding Wall-Tex. Let us give you full details. Mail the coupon for Wall-Tex file folder 28-C-1, including large selection of Wall-Tex samples for every type of room.

Columbus Coated Fabrics Corporation, Dept. AB-35, Columbus, Ohio
Please send me Wall-Tex file folder 28-C-1, including Wall-Tex Samples.

Name.....

Address.....

City..... State.....

for beauty and long service

WALL-TEX

washable wall canvas

ing agencies are again coming into the real estate mortgage field. Mortgage loans for new home building may now be obtained in 51 per cent of the cities. Banks are cited as a present source of such loans in 24 per cent of the cities; insurance companies in 29 per cent of the cities; private investors in 47 per cent of the cities replying. But only at scaled appraisals, in preferred localities or at 30-50 per cent of present day valuations, many reports add.

5. Money supply for real estate financing is still deficient, though the complete dearth of the past five years has been broken. In 52 per cent of all cities reporting loans are seeking capital. But 71 per cent of the very largest cities report capital seeking loans, a condition that has not been shown in these surveys in any population group or in any geographical section of the country since June, 1929. But in practice terms are likely to be prohibitive. "Plenty of money, but hard to get," is a very general report.

6. Interest rates for real estate money show a tendency to fall. There has been so little lending that interest trends and rates cannot be reported with exactness, many cities point out.

Residential rents are very generally going up. Spread of change is as follows:

For single family dwellings higher rates are reported in 53 per cent of the cities, a stationary condition in 38 per cent of the cities. Only 9 per cent show a down trend. For apartment space, 57 per cent of all cities show up trend, 39 per cent a stationary situation, and 4 per cent a down trend. There is practically no down trend in any city of over 100,000 population. Spread of change varies with the size of the cities. Of cities over 500,000 population, 88 per cent report higher rates for single family dwellings, 100 per cent report higher apartment rates. Of cities of 200,000-500,000 population, 78 per cent are up as to single family dwellings, 73 per cent are up in apartment rates. Of cities in the 100,000-200,000 class, 56 per cent show higher rates for residences, 55 per cent for apartments. Of cities under 25,000 population, 43 per cent show higher rents for single family dwellings, 45 per cent show a rise for apartment space.

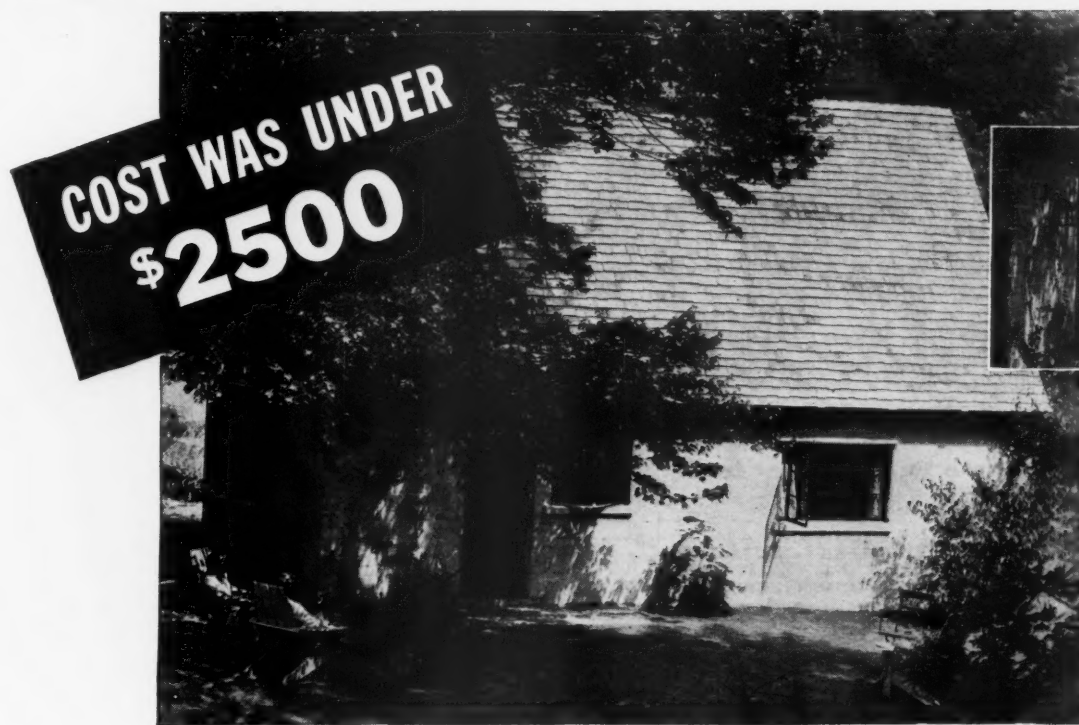
As to subdivision market, greater activity is reported in 14 per cent of the cities, stationary condition in 66 per cent of the cities, market less active than last year in 20 per cent of the cities. Very little geographic variation is shown.

PERCENTAGE OF CITIES REPORTING OVERBUILDING, NORMAL SUPPLY OR SHORTAGE IN SINGLE FAMILY DWELLINGS, APARTMENTS AND BUSINESS PROPERTY

Section and Size of City	Single Family Dwellings			Apartments			Business Property		
	Over	Normal	Short	Over	Normal	Short	Over	Normal	Short
Totals for U.S. and									
Canada	5	42	53	10	60	30	35	60	5
New England.....	6	31	63	20	53	27	25	75	
Middle Atlantic.....	5	53	42	9	49	42	41	57	2
East North Central.....	5	52	43	7	69	24	42	58	
West North Central.....	5	50	45	10	70	20	40	55	5
South Atlantic.....	3	36	61	10	56	34	24	64	12
East South Central.....	25	50	25	12	63	25	25	75	
West South Central.....	7	20	73	7	75	25	50	50	
Mountain		33	67	11	78	11	22	78	
Pacific	3	24	73	8	56	36	29	58	13
Canada		80	20	40	40	20	40	40	20
Over 500,000.....		60	40	29	57	14	71	29	
200,000 to 500,000.....		38	62	24	76		50	45	5
100,000 to 200,000.....	9	64	27	16	68	16	55	42	3
25,000 to 100,000.....	7	37	56	6	60	34	31	68	1
Under 25,000.....	4	39	57	4	67	29	20	67	13
District and County Boards		39	61	9	34	57	39	56	5

PERCENTAGE OF CITIES REPORTING UPWARD, STATIONARY OR DOWNWARD MOVEMENTS OF RESIDENTIAL RENTS AS COMPARED WITH DECEMBER, 1933

Section and Size of City	Single Family Dwellings			Two Family Dwellings			Apartments		
	Up	Stat.	Down	Up	Stat.	Down	Up	Stat.	Down
Totals for U.S. and									
Canada	53	38	9	41	49	10	57	39	4
New England.....	20	47	33	14	57	29	7	86	7
Middle Atlantic.....	29	53	18	22	50	28	50	37	13
East North Central.....	67	27	6	55	40	5	66	34	
West North Central.....	45	50	5	25	65	10	53	47	
South Atlantic.....	65	35		56	44		71	29	
East South Central.....	63	37		50	50		50	50	
West South Central.....	75	19	6	69	31		56	44	
Mountain	56	44		33	67		56	44	
Pacific	59	33	8	38	54	8	60	32	8
Canada	20	60	20	80	20	60	60	20	20
Over 500,000.....	88	12		88	12		100		
200,000 to 500,000.....	78	18	4	50	45	5	73	27	
100,000 to 200,000.....	56	35	9	44	41	15	59	38	3
25,000 to 100,000.....	54	39	7	39	52	9	55	41	4
Under 25,000.....	43	43	14	34	54	12	45	49	6
District and County Boards	43	46	11	34	53	13	58	33	9



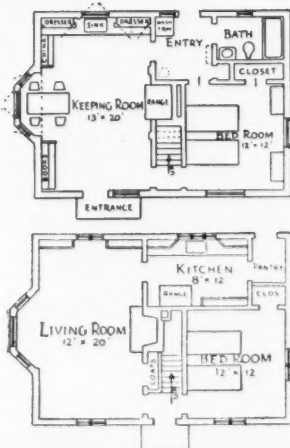
Architect:
Frank Harper Bissell
Location: Suburb of
New York City



... and thousands of inquiries flooded the offices of Woman's Home Companion

MODERN CONCRETE CONSTRUCTION

- Exterior walls of concrete ashlar masonry, in random sizes.
- Walls painted exterior and interior with portland cement paint.
- First floor of concrete on precast concrete joists, colored red and marked off in squares.



Alternate Floor Plans

THINK of it . . . not dozens—not hundreds—but thousands of inquiries swamped Companion editors day after day following announcement last March of this "Home-Keeping House."

Then, to cap it all, thousands more wrote in all through the summer, or traced the location (purposely not played up) and drove to see it. More than 100 sets of plans have been purchased.

To you as a builder watchful of trends, here is amazing evidence not only of modern concrete construction popularity but also of how far experience has spread the fear of high maintenance costs in less rugged types.

Yes, sir, as never before, to get "per-

manence" is today's foremost buying tendency. The builder who makes the most of it by showing his prospect the big value he can build in firesafe, enduring concrete, will find it easier to sell houses at a profit.

Furthermore, you can take full advantage of FHA rulings, which give preference to construction promising slow depreciation and few repairs and allow longer loan period for high fire resistance. And that is important!

Concrete homes defy fire, wind, decay, termites. They're cozy in winter—cool in summer. Whether your prospect wants a Colonial home, or Spanish, or English, or what, they can have these advantages at low cost.

COLOR REPRINTS—5 COPIES FREE

Write for reprints of Woman's Home Companion articles on the "Home Keeping House," with alternate floor plans. They will help you land contracts.

PORTLAND CEMENT ASSOCIATION

Room 153, 33 West Grand Avenue, Chicago, Ill.

I want five free copies of the "Home Keeping House" reprint to help me sell houses. Also complete information on items checked below:

- ☐ Modern concrete home construction. ☐ Fireproof home designs. ☐ Precast concrete joist floors.
☐ Manual of residence floor construction. ☐ Concrete ashlar masonry. ☐ Portland cement stucco and plaster. ☐ Concrete for modernizing (sales aids). ☐ Quality concrete making.

Name.....

Business or Firm.....

Address.....

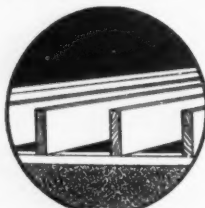
City.....State.....

How Old Are Termites?

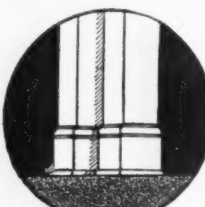
Vulnerable points for Termite damage



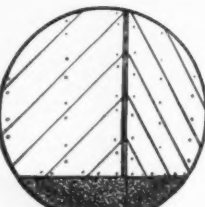
1. Plates and corner posts.



2. Sills.



3. Porch columns.



4. Sheathing.

THE termite is not a by-product of the depression or even of the machine age. While it has been observed recently in new territory and been charged with greater damage than ever before, it has long been a familiar insect to entomologists.

The effectiveness of impregnating lumber with creosote or zinc chloride to stop termites from consuming the wood has also been known for a long time. Generations of experience are behind this knowledge. Every government and scientific research in this field confirms this experience.

This organization has for many years produced treated timber capable of resisting attacks of termites as well as of decay - producing fungi. Such lumber can be recommended with full assurance that the treatment will justify the claims.



AMERICAN CREOSOTING COMPANY

COLONIAL
CREOSOTING
COMPANY
INCORPORATED



GEORGIA
CREOSOTING
COMPANY
INCORPORATED

LOUISVILLE — KENTUCKY

FHA Starts Sales Schools

TO teach modern merchandising to the rank and file of contractors, dealers and building materials distributors, a series of nation-wide semi-monthly sales schools are being arranged by the Industries Division of the Federal Housing Administration.

The division points out that the Better Housing Program is reviving industry, with modernization activity proceeding at the rate of \$2,000,000 a day. The schools are being arranged for the purpose of stimulating "point of sale" action among dealers and local distributors of materials utilized in Better Housing Programs throughout the country.

To facilitate this program, a letter has been addressed to manufacturers of the nation inviting them to send their best men from sales and promotional departments to the schools to act as instructors and lecturers. It will be the purpose of these lectures to help the building trades do a better selling job.

Big Firms Back FHA

JAMES A. MOFFETT, Federal Housing Administrator, announced Feb. 16 the approval of two of the nation's leading financial institutions, The New York Life Insurance Co. and the National City Bank of New York, to act as mortgagees under the terms of the mutual mortgage insurance plan of the National Housing Act.

The insurance company has total resources amounting to \$2,109,505,224.37. Resources of the National City Bank are \$1,640,110,830.76, deposits \$1,394,604,307.84, and capital funds \$165,773,297.90 with 73 branches in Greater New York.

With the addition of these two institutions, the total number of financial organizations approved as mortgagees is now 2,123 with 1,808 branches, making a total of 3,931 offices available for mutual mortgage insurance. The total resources of these institutions is \$25,216,161,000.

FHA Borrowers Pay Well

THE Federal Housing Administration announced Feb. 3 that after a period of nearly six months, more than 99½ per cent of the loans made by them under their insurance contract do not have a single monthly payment as much as sixteen days overdue. On Feb. 1, 1935, a total of 88,000 loans of an average amount of \$421 had been insured.

Loans under the Modernization Credit Plan increased almost a million and a half dollars during the week ending Jan. 28, while the total dollar value of modernization and repair work stimulated by the Better Housing Program increased almost eight million dollars. Despite the unfavorable winter conditions, modernization and repair work is maintaining undiminished volume.

The dollar value of repairs and modernization stimulated directly by the Better Housing Program was estimated on Jan. 26 as \$221,815,720.

Contractors Sent Questionnaires

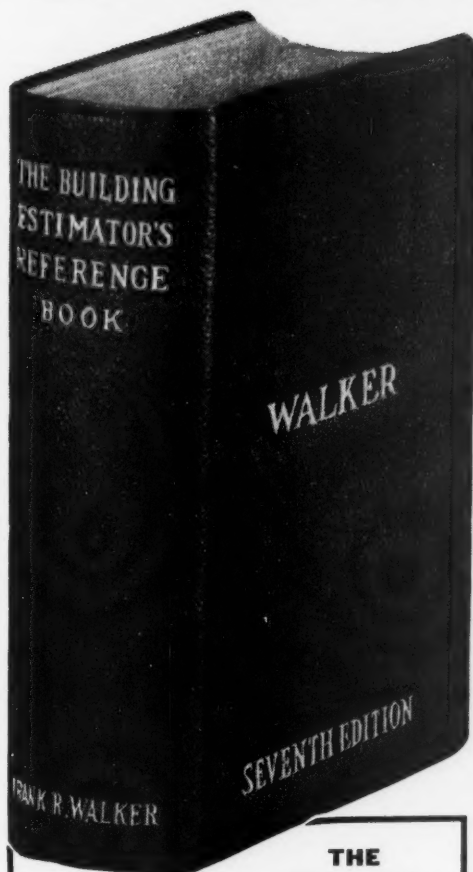
ACCOMPANIED by a letter of explanation from the Construction Code Authority, a statistical questionnaire requesting employment and payroll figures is being mailed to one hundred and fifty thousand registered employers of the construction industry.

The report is to include new construction, remodeling, repairs and maintenance without any exceptions regarding the size of the orders except that Federal Government projects are not to be reported, nor any projects financed by PWA or RFC funds.

The information is to be summarized by the Bureau of the Census and every precaution is to be taken to keep the reports of the individual contractors strictly confidential. As a means of accomplishing this, a tab is attached for recording the name and address of the contracting firm, and this tab will be detached by the Construction Code Authority on receipt of the questionnaire so that the record as it goes to the tabulating organization will be strictly impersonal. Only compiled summaries for the entire industry will be published.

It is stated that important decisions may hinge upon the reliability and scope of the information concerning employment and other conditions in the industry which will be tabulated from this questionnaire, and all contractors are urged to report.

Get YOUR Share of New Work at a Profit!



THE BUILDING ESTIMATOR'S REFERENCE BOOK

Contains 1500 pages of up-to-the-minute estimating and cost data on all classes of construction work. Size 4 1/2 x 6 1/2 inches, Profusely Illustrated Flexibly Bound

HERE IS THE INFORMATION EVERY CARPENTER AND CONTRACTOR NEEDS to obtain your share of work under the New Housing and Modernization drive. Complete estimating and cost data on all classes of construction work that will enable you to estimate new work, remodeling or repair jobs quickly, easily and accurately.

Accurate Labor and Material Costs

This New Guide enables you to estimate labor and material quantities as accurately as is humanly possible, showing you just how all classes of work should be figured. Many new labor-saving tables help you do this.

All estimates are completely itemized, so that the contractor and estimator may insert local material prices and wage scales where necessary. This insures accurate estimates and permits you to make comparisons between estimated and actual costs.

New Methods and New Tools Cut Costs

Many new methods of handling your work are described that will enable you to increase your daily output. New labor-saving tools will help you cut your labor costs. They actually tell you just how much of a saving can be made over present methods.

The Books Must Prove Their Value to You—or Money Refunded

You take no chances in sending for these new books. Use them for 5 days on your own work or when preparing your own estimates. If they don't more than prove their worth to you, return them and the purchase price will be refunded at once.

FREE!

The New Vest Pocket ESTIMATOR



Size 2 1/4 x 5 in. Flexibly Bound

The most popular little book contractors have ever used. Between its flexible covers you'll find 220 pages crammed full of up-to-the-minute estimating and cost data that you can use to big advantage in your business every day. Always in your pocket when you want it—on the job or in the office. We'll send The New Vest-Pocket Estimator **FREE** with The Building Estimator's Reference Book.

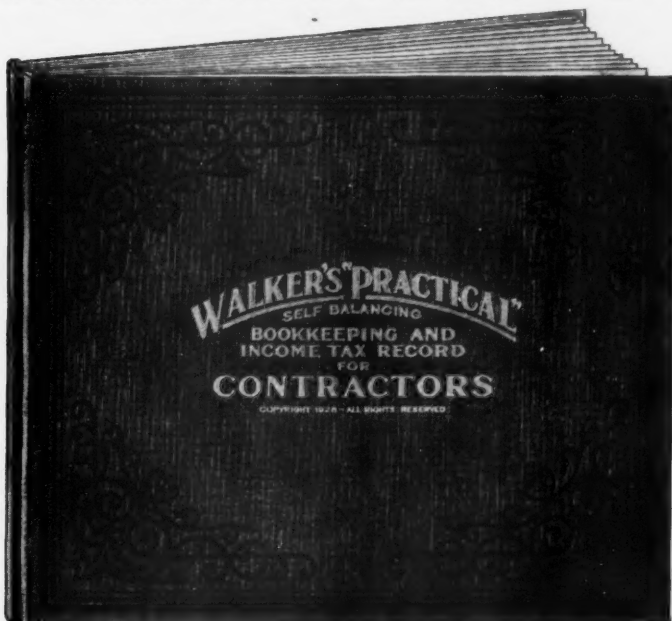
WALKER'S BOOKKEEPING AND INCOME TAX RECORD for Contractors—ABSOLUTELY FREE!

The new Construction Code requires every contractor taking jobs of \$2,000 or more, keep a complete set of business records. HERE THEY ARE ALL READY FOR YOU IN THIS NEW BOOK!

A Complete, Easy Bookkeeping and Income Tax Record That May Be Kept in Spare Time

Tells you everything you should know about your business at a glance. Contains sheets for keeping detailed records of your Contracts, Job Cost Accounts, Sub-Contract Accounts, Accounts with Material Dealers, Monthly Totals of all Expenditures, Job Profits and Losses, and a Complete Statement and Profit and Loss Sheet for Making Up Your Income Tax Return.

Wm. Saltwisch & Son, Hinsdale, Ill., say: "Have certainly had great results with your Bookkeeping and Income Tax Record. Send us another."



AB-8-35

USE THIS COUPON AND SAVE \$5

American Builder and Building Age, 30 Church Street, New York.

Enclosed please find \$10 to cover cost of THE BUILDING ESTIMATOR'S REFERENCE BOOK, THE VEST-POCKET ESTIMATOR AND WALKER'S BOOKKEEPING AND INCOME TAX RECORD in accordance with your special offer.

NAME _____

ADDRESS _____

TOWN _____

STATE _____



Perfection

BRAND OAK FLOORS

In old homes or new, whether for renting or selling, "PERFECTION" BRAND Oak Floors give service and satisfaction. The greatest value for the money.

Take advantage of the new Housing Administration Act and sell good Oak Floors on your modernizing jobs.

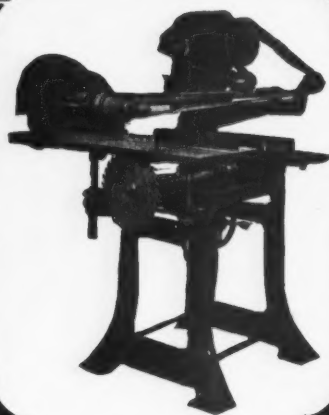
"PERFECTION" BRAND Oak Flooring as furnished by your local dealer is carefully manufactured from selected timber, scientifically seasoned and kiln dried, easily finished. Ask your dealer today to show you the "PERFECTION" BRAND.

Complete information is yours for the asking. Write us today. Sold only through retail lumber dealers.



ARKANSAS OAK FLOORING CO.
PINE BLUFF ARKANSAS

time-saver!
space-saver!
power-saver!
**MONEY
MAKER**



This remarkable machine cuts costs as quickly and as surely as it cuts wood! Does the work of five ordinary machines—eighteen different everyday jobs—faster and at less cost! Cross-cut saw, rip saw, jointer, shaper and router—five machines in one . . . at the cost of one. Ball-bearing throughout. Write for full particulars.

AMERICAN SAW MILL MACHINERY CO.

61 Main Street

Hackettstown, N. J.

**THE 20th CENTURY
WOODWORKER**

Installment Sales Increase

GREATER popular acceptance of the deferred payment method of budgeting repairs and other modernization work for the home was developed during the last six months, reports Herbert Abraham, president of The Ruberoid Co., roofing and building product manufacturers.

"Apparently home owners in all parts of the country are fast adopting the policy of installment payments for home building maintenance and modernization," says Mr. Abraham. "As manufacturers, our attention was brought to this trend by the increasing business developing under our own financing plan. In spite of a substantial monthly increase each month from April to September, The Ruberoid Co. did more financing for property owners in the two months of November and December, 1934, than during the entire preceding six months period.

58 HOLC Foreclosures

THE Home Owners' Loan Corporation reports that of the 58 foreclosure suits which it has so far instituted throughout the United States, only ten have resulted from deliberate default by home owners who apparently believed that no action to force payment would be taken by the Corporation, the remainder being due to abandonment, resulting from death of the owner or similar misfortune.

Referring to the ten cases of willful delinquency, John H. Fahey, chairman of the Corporation, said: "The public interest calls for general recognition that individual loans from this Corporation are valid obligations, and that no compromise can be made with borrowers who refuse to live up to their contracts.

New Gas Air Conditioner

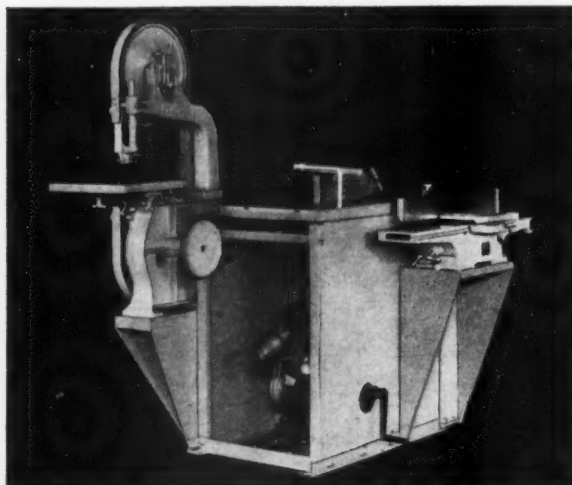
INTRODUCTION of a gas-operated summer air conditioner for homes, commercial structures and industrial plants has been announced by the Industrial Gas Research Committee of the American Gas Association.

The new unit differs radically from any other summer air conditioning apparatus, using silica gel, a white, glass-like porous substance capable of absorbing forty per cent of its weight in moisture. Several layers of this material are placed in the cabinet and air that is to be conditioned is forced by fan through it. The air then is passed over water-cooled pipes, where it is cooled and forced through ducts to the various parts of the home or factory. The operation of the machine is automatic.

Announce New Woodworker

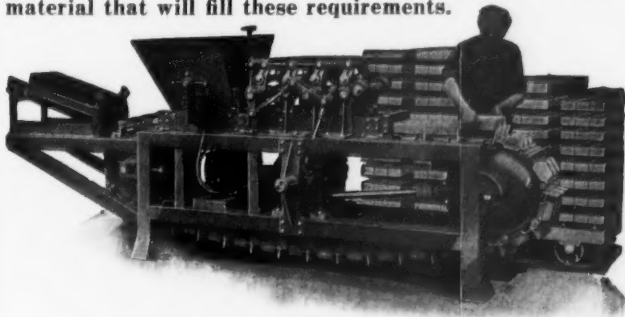
A NEW compact, light weight woodworking machine called the Homebuilder Junior has been announced by the C. H. & E. Manufacturing Co. of Milwaukee.

The steel plate saw table measures 22 x 35 inches. Frame is built up of heavy sheet steel on a welded steel skid, furnished with 14-inch band saw, 6-inch jointer and boring and mortising units. All attachments run independently without interfering with one another; four men can work on this machine at one time. It is also featured by double tilting rip and jointer fences with easy and highly accurate settings.



FOR PROFIT FROM TO DAYS DEMAND *for permanent low cost housing*

Old methods and materials must be replaced by modern, lower cost, permanent construction if building is to revive and progress. The entire trade from the architect, contractor and financial institution to the eventual home owner all are ready and waiting for a New Day building material that will fill these requirements.



Continuous belt delivers triple stream of DUNBRIK of lighter weight with 20% saving in material.

DUNBRIK with its beauty, permanence and low cost fully meets these present day needs. Wherever it is now manufactured, builders and contractors are building better buildings for less. This coupled with its wide appeal and general acceptance has resulted in DUNBRIK manufacturers securing from 60 to 80% of all available business in their territories.

DUNBRIK offers an outstanding opportunity for some reliable firm or individual in each territory. With America's greatest building market approaching and government finances available everywhere, now is the time to investigate. Send for "4 Keys to Success" and learn how you too can own a successful DUNBRIK business with big possibilities for expansion. Write today.

W. E. DUNN MFG. CO.

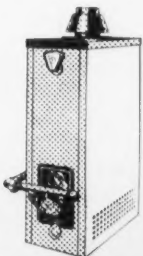
450 W. 24th St.,

Holland, Mich.

Another Sale! . . . thanks to **AGP AUTOMATIC STORAGE WATER HEATERS**

"IDEAL" Gas-Fired Boilers

for carefree Gas Heating

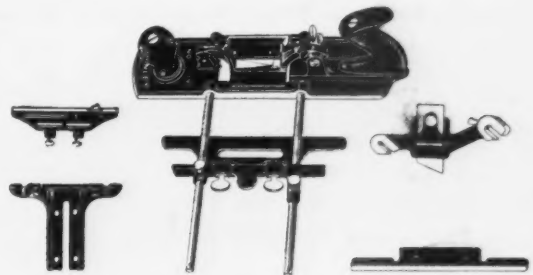


CONSTANT, low-cost automatic hot water, with AGP gas-fired storage water heaters is one of the things that helps a prospect make up his mind. It's a selling point—a talking point that will live up to what you say about it, and give no cause for a kick-back later. Wise builders build in AGP hot water supply because wise buyers know its value and its reputation.

Both the Dictator and the Regular line of AGP Water Heaters are fool-proof, dependable, easily installed. Both have completely automatic, snap-acting thermostatic valve. Both available with tank of Galvanized Steel or Everdur Copper. Complete range of sizes. Write for literature.

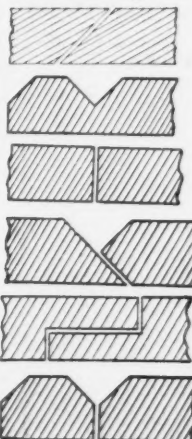


AMERICAN GAS PRODUCTS CORPORATION
 DIVISION OF AMERICAN RADIATOR COMPANY
 40 WEST 40th STREET, NEW YORK, N.Y.



Interior decoration with Fibre Board made Easy..Economical..Profitable with

Stanley Fibre Board Cutter No. 193



Cutting off or slitting with the Fibre Board Cutter is easy and fast with the edges left remarkably smooth.

Recommended and used by fibre board manufacturers for beveling, grooving and mitering. Excellent for making bevel edge battens, ship lap joints and circles.

See this remarkable tool at your hardware dealer's or write for Folder P-47 which gives full description.

STANLEY TOOLS
 New Britain, Conn.

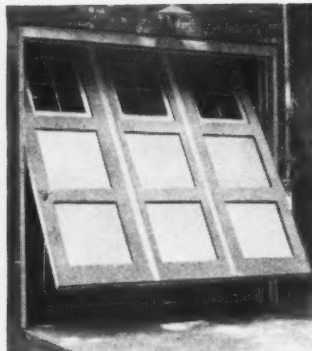


A COMPANION ITEM TO THE FAMOUS STANLEY BAILEY PLANE

Go After These PROFITS! MODERNIZE Garage Doors!



● BEFORE



● AFTER

Here is a field of PROFIT that proved a "life saver" for many a builder this year. With "Over-the-Top" Door equipment you can modernize any set of vertical garage doors to open "overhead." Install it on OLD doors or new, in a few hours. No other "overhead" type equipment offers all its advantages. Low cost, simplicity and convenience do the selling. Write for information and name of dealer in your city—he will share profits generously with you on installations you sell.

FRANTZ MFG. CO.

STERLING, ILL.

"Over-the-Top"
Door Equipment

BUILDERS!

mail Coupon Today
for this

FREE BOOK



BIG MONEY-MAKING OPPORTUNITY FOR YOU

Something NEW, with an EXCLUSIVE TERRITORY arrangement, that will net you handsome profits. MODERNIZE FRAME and STUCCO HOMES with

2-Inch BRICK VENEER

NOT NAILED ON, but laid individually in mortar, utilizing the new MASON PATENTED BEAM FOUNDATION. Unlimited field; tremendous possibilities. No costly excavation and back-fill. Surprisingly low cost.

Improves appearance, saves fuel, saves paint, eliminates fire hazard, increases loan and resale value.

"A House a Day Veneered the Mason Way."

NO CAPITAL REQUIRED

We license the use of the MASON BEAM FOUNDATION in exclusive territories on a royalty basis.

MASON 2" BRICK VENEER CO.,
3255 Goldner, Detroit, Mich.

Without obligation, please send FREE BOOK and full details.

NAME _____

ADDRESS _____

LETTERS from readers on all subjects

Facts, opinions and advice welcomed here

The Hauptmann Ladder

Warren, Minn.

To the Editor:

One witness, a nurseryman, was being questioned at the Hauptmann trial in trying to unravel the mystery surrounding the kidnapper's ladder; or perhaps it would be more correct to say that more mystery was being wound around the thing. Part of the testimony explained the annual growth rings in certain kinds of trees. "Hardwood trees," the witness stated, "develop a ring of growth every year, but softwood trees develop them every five years." All the trees in Minnesota that I have had anything to do with had one ring for each year of growth whether it was hardwood or softwood. The rings are of course more distinct in some kinds of trees than they are in other kinds.

"Lumber and Its Uses," a book by R. S. Kellogg, states that "trees which grow in warm climates do not develop annual rings." It is easy to understand why annual rings are formed in trees growing in cold climates, and it is also easy to understand why annual rings are less distinct in trees growing in warm climates; but it is not so easy to understand why trees should refuse to grow such rings for four years and then suddenly change their habits the fifth year.

I saw that statement by the witness only once, but nobody at that time questioned the truthfulness of it, nor was any cross examination done on that point, even though much fuss has been made over small matters. There certainly has been more than enough fuss made about that ladder. One expert testifies one way and another expert contradicts the first.

If trees are found that develop growth rings only once in five years, it should be fun to know where they grow and what they are called; but until I get other information that corroborates that witness' testimony, I will take it for granted that someone was badly in need of proofs without being able to find any real ones.

C. H. LINDBERG,
Carpenter and Builder.

Who Can Beat This?

Fairview, Pa.

To the Editor:

It may be of interest to you to know that I have subscribed for this magazine continuously for the past 48 years. It was formerly called "The Carpenter and Builder."

T. WOODS STERRETT,
Surveyor and Engineer.

Against Price Fixing

Prairie du Sac, Wis.

To the Editor:

I have not been able to see where the price fixing of building materials has been any benefit to the rural consumer with the exception that it seems to have improved the quality of wood shingles, but it certainly also has put the brakes on a lot of re-roofing business around here and other business has been paralyzed as a result, if you ask me.

My personal opinion is more business in the government and a little less government in the business.

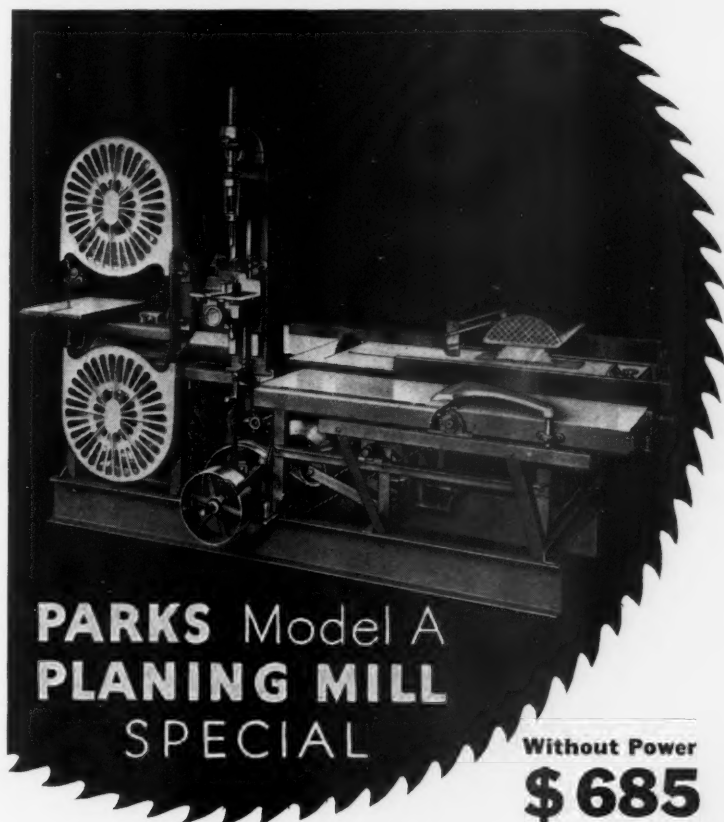
REUBEN MUELLER.

"Shoulder to the Wheel"

Newcastle, Wyo.

To the Editor:

We are in the general contracting game as to residence and business buildings, so on the enclosed list of catalogs
(Continued to page 82)



**PARKS Model A
PLANING MILL
SPECIAL**

Without Power
\$685

LARGEST WORKING SURFACE OF ANY COMBINATION MACHINE
Includes cast-iron double table rip and crosscut saw, 22" band saw, swing cut-off saw, 12" jointer, tenoner, upright hollow chisel mortiser and borer, reversible spindle shaper and 18" sanding disc. Complete with one 12" cut-off saw, one 12" rip saw, one 10" cross-cut saw, one 3/8" band saw, and five belts.

NEW MODEL! NEW FEATURES!

EIGHT MACHINES IN ONE

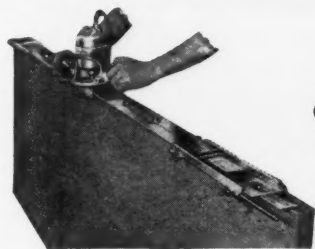
The new Model A Planing Mill Special has the largest working surface of any combination machine now on the market, giving a **complete** modern shop, performing **every** woodworking operation. Here is a real buy—moderate in price, low in operating cost, sturdy in construction, calling for little or no repairs, that will make money for you on every job and will last for years. Each unit independently operated. All bearings high-grade ball bearings.

Write for descriptive circular.

THE PARKS WOODWORKING MACHINE CO.
Dept. BL-3, 1524 Knowlton St., Cincinnati, O.
GOOD WOODWORKING MACHINES SINCE 1887



MORE JOBS THIS SPRING
More Money **PER JOB**
if you use
**CARTER ELECTRIC
DOOR SET**



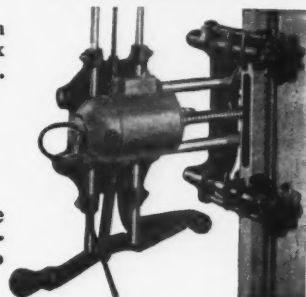
**CARTER HINGE BUTT
ROUTER and TEMPLET**

With this equipment you can mortise for butt hinges six times faster than by hand.

**CARTER ELECTRIC LOCK
MORTISER**

Faster than one a minute is the performance of this equipment. Pays for itself on two good jobs.

If you want to know how to do a better job, do it faster, cut your estimates and make more money, look into the possibilities of this equipment.



Write for complete descriptive folder showing these and other money making Carter items.

R. L. CARTER DIVISION
THE STANLEY WORKS
116 Elm Street, New Britain, Conn.



**AMERICAN
STEEL
SHEETS**
FOR ALL KNOWN USES

KEYSTONE Copper Steel Sheets
Excel in the Building Field

Use sheets of recognized reputation and value. For roofing, siding, gutters, spouting, air conditioning systems, and general sheet metal work—Keystone Copper Steel gives *maximum rust resistance*.

Insist upon **AMERICAN** Black Sheets, Keystone Rust Resisting Copper Steel Sheets, Apollo Best Bloom Galvanized Sheets, Galvannealed Sheets, Heavy-Coated Galvanized Sheets, Formed Roofing and Siding Products, Terne Plates, etc. Write for information.

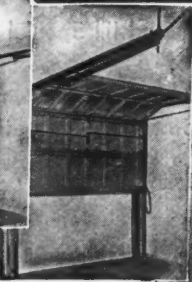
This Company also manufactures **U S S STAINLESS** and Heat Resisting Steel Sheets and Light Plates for all uses to which these products are adapted.

AMERICAN SHEET AND TIN PLATE COMPANY, Pittsburgh, Pa.
SUBSIDIARY of UNITED STATES STEEL CORPORATION

REMODELING OR ON NEW JOBS



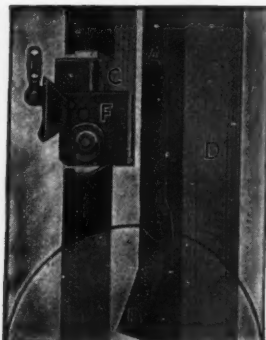
Ro-Way Overhead Doors can't jump the track, bind nor freeze in. They are also exceptionally attractive in appearance.



—the first door to consider for residence garages, public garages, service stations and general industrial use is the Ro-Way. It is fairly priced. It requires fewer alterations in old building. It is the only overhead type of door having the Seal Tite molding feature.

RO-WAY Overhead Doors

—for commercial and residential use



are made in sixteen different head room requirements of 8½ to 21 inches. All standard sizes and heavy duty doors with special heavy tracking are available.

SEAL TITE MOLDING

—is an exclusive Ro-Way feature which instantly frees all sections of the Ro-Way Door in opening and just as effectively seals the door draft-tight on closing.



Write for Folder

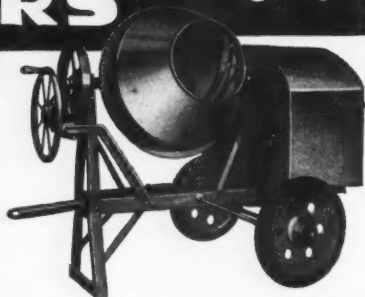
Rowe Manufacturing Co.

715 Holton St. Galesburg, Ill., U. S. A.

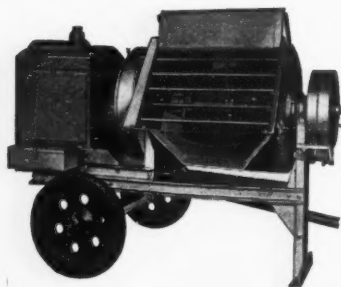
Note how the Ro-Way Door opens without a particle of "drag."

KWIK-MIX MIXERS

Full anti-friction bearing. Light weight. Skip shaker. Automatic water tank. Spring mounting. Sizes: 3½-S, 5-S, 7-S, 10-S.



3½-S Trailer — Roller Bearing — Spring Mounting.



Plaster and Mortar Mixers Trailer and 4 Wheel Type.

DEALERS! ATTENTION!

Desirable territories are available to progressive Lumber and Materials Distributors

Kwik-Mix

Write for Catalog AB

KWIK-MIX CONCRETE MIXER CO.
PORT WASHINGTON . . . WISCONSIN

LETTERS—Continued

you will find practically all the numbers included to be mailed. If there is any charge for stamps or charge of any kind, we will be glad to mail a check for same.

We look for quite a building year here through the Housing Act, if money is going to be available. At the present we have quite a number we are working on plans for, so will be ready for it when the time is ripe.

Your AMERICAN BUILDER covers the field very well, and you certainly have put your shoulder to the wheel and boosted the building game along, which has been quite an uphill pull the last few years; but we hope for better times in 1935.

I have taken the AMERICAN BUILDER off and on for the past 15 years and have always found it very helpful in my business; also for customers.

Best of luck for 1935.

HAYS & THOMPSON,
Contractors and Builders.

Iowa Association Alert

Des Moines, Ia.

To the Editor:

One of our dealers very kindly sent us your bulletin entitled, "Dealer's Annual Call."

We have read it with much interest, especially that part pertaining to the mail-order houses' plan for a greater volume of business. You might be interested in knowing that the Iowa Association of Lumber and Building Material Dealers, realizing that the National Housing Act was lagging in the State of Iowa, has announced a finance plan to all the dealers in Iowa, making it possible for them to secure loans through our financing department in conjunction with the Iowa-Des Moines National Bank & Trust Company.

May I say we are the only retail association that has made it possible for the dealers in the state to tell their farm, town and city customers that they are in a position not only to finance their repair work and new buildings but we have also placed our dealers in a position to meet the mail-order house competition from a financial point of view.

W. H. BADEAUX, Secretary,

Iowa Assn. of Lumber & Building Material Dealers.

Buffalo Builder Interested

Buffalo, N.Y.

To the Editor:

"Speak for Yourself, John" which appears in the February issue of your periodical contains several things which I have felt for some time are of vital importance to builders. There is unquestionably a crying need for organizing the builders so that this much abused occupation may be classed as a profession.

Has any such movement been started in this city, Buffalo? If not, would you be good enough to give me some reference with whom I may correspond to secure further information as to how they started their organizing? Your co-operation in this matter will be appreciated.

J. HAROLD GENRICH,
Genrich Builders.

Smaller Homes Wanted

Watertown, S. Dak.

To the Editor:

We are asking our Winona, Minn., office to subscribe for the AMERICAN BUILDER for three of our local contractors and in due time you will receive notice of this. In talking to these three contractors, they all advised that they had taken the AMERICAN BUILDER in prior years but due to various reasons had stopped.

One of the main reasons was that at the present time there seems to be a demand for homes of the smaller type and your magazine carried pictures of the larger type homes. Due to smaller incomes, the one-story house with from five to seven rooms, bath included, seem to be the most popular, and these to cost from \$3500 to \$4000 complete, which would include heating, plumbing, wiring, painting, etc.

It would be unreasonable to expect you to show all small homes in your magazine but if there was at least one each month that would come within the above price range, it would be appreciated.

HAYES-LUCAS LUMBER COMPANY,
By Chas. H. Woellstein, Manager.

BIG PROFIT MAKERS For you



MAKE COLORCRETE ORNAMENTS

New—Fascinating—Easy to make. You use local materials that cost but a few cents per piece. Finished products sell from \$1.00 to \$9.00. 40 designs and over 30 beautiful colors and shades available. Sell at sight for porches, gardens, lawns, cemeteries, golf courses, etc. Now is the time to start. Get ready for the big spring demand. Only small working space required. Territorial franchise granted right firm or individuals. Learn about this exclusive opportunity with big possibilities for expansion. Send for free Catalog No. 22.

STUCCO SPRAYING MACHINE

This marvelous machine and process completely solves the problem for renovizing all masonry buildings, walls, etc. It fuses a plastic waterproof mixture that fills all cracks in any masonry surface in any thickness desired and in 30 colors and shades. Process proven by over six years of actual use in practically every climate.

Many owners report costs of only 8c to 10c with sales at 20c to 40c per sq. yd. The profit on one job often pays for machine. Shipped on free trial and easy payments. Government renovizing campaign opens up additional business with even greater opportunities in every city. Send today for Bulletin No. C-4.



COLORCRETE INDUSTRIES, INC. 500 Ottawa Ave., Holland, Mich.



The problem of making every job you do pay a fair profit is best solved by eliminating waste time and effort.

Stanley Safety Saws will do the work of sawing in one-tenth the time. They are light in weight, easily handled, safe and unusually rugged and powerful. They are built to withstand the abuse of constant hard usage.

Made in five sizes, with capacities from 1½ inches to 6 inches. Blades can be furnished for cutting almost any material that can be sawed. Descriptive catalogs of Stanley Saws for both wood and stone and other Stanley Portable Electric Tools will be sent on request.

STANLEY ELECTRIC TOOL DIVISION
THE STANLEY WORKS

131 Elm Street, New Britain, Conn.

STANLEY ELECTRIC TOOLS

A COMPLETE LINE OF PORTABLE ELECTRIC SAWS, HAMMERS, DRILLS, SCREW DRIVERS, GRINDERS AND UNISHEARS (THE MOTOR DRIVEN HAND SHEARS)

Faster Scaffolding

Ever figure how long it takes—what it costs to erect and tear down scaffolding. Its cost will surprise you. That is why thousands of builders are using Reliable Scaffolding Brackets. They're stronger and cheaper to use than costly wooden scaffolding. You can erect and remove them faster. Use them on wood or stucco. Let us prove their value. Send for free catalog, then ask us to ship first pair C.O.D. for your inspection and trial. You'll never do without them again.



Reliable Jack Company, 1401 West Second St., Dayton, Ohio

RELIABLE

SCAFFOLDING BRACKETS



IF YOU COULD LOOK RIGHT THROUGH A WALL!

If you could always see the building paper—you'd be as insistent on lasting quality in this material as you are in doors, floors or fixtures.

While poor building paper is hidden and its rips or cracks are seldom exposed, the owner pays the penalty of having imperfect protection—and he knows something is wrong, even if he can't see it.

"Out of sight, out of mind" may have applied to building paper in the past, but the success of Sisalkraft in recent years proves that contractors and dealers can and do think straight about the necessity for delivering sound and lasting building paper protection.

Any material which fails to do the job for which it is bought is expensive at any price—whether you can see it or not. Sisalkraft does its job and does it well.

THE SISALKRAFT CO.

205 W. Wacker Drive, Chicago, Ill.

SISALKRAFT

REG. U. S. PAT. OFFICE

"More than a Building Paper"

"Better Stone Houses for Less"

(Continued from page 33)

struction has been predicated on the idea that it was necessary to substitute light weight for mass, whereas his costs based on actual job experience would seem to indicate otherwise. Stone and concrete, if utilized in the proper manner, are extremely inexpensive. Quarry stone, for example, is inexpensive and is available in practically all localities; even when shipped long distances its costs are low as it takes the same shipping rate as coal. It is the cutting of stone to an exact dimension that has made the costs prohibitive and this necessity has been eliminated in his construction. For the floors, concrete costs in themselves are low and by utilizing steel forms and pouring the concrete directly from ready-mix trucks into these forms, a tremendous saving in handling costs is effected.

How to Lay Out A High Corn Crib

(Continued from page 49)

of each crib are two 4x4 built up trusses to resist outward pressure of the grain. The top plate of the grain bin is braced to the top of the main rafter plate with 2x6's, 4 feet on centers. The entire roof is covered with 12½-inch 4-1 blue-black asphalt slabs.

The outside cribbing is 1x6 with beveled edges spaced ¾-inch apart. Inside cribbing is 1x6 square edge. The gable ends are covered with 1x6 drop siding from the top of driveway door level. Drop siding on this level continues around the upper part of the outside of the cribs to protect the grain after settlement.

Wire netting of ½-inch mesh is carried around the entire cribs back of the drop siding at height of 2 feet from the floor level for rat proofing. The metal is continuous on all openings and shelling doors.

How to Sell Modernization Contracts

(Continued from page 55)

saying but a true one and all big business concerns have found it profitable: Service Pays! And by service, that means extra service."

As the car drew up at the railroad station, Jim turned to his friend in great earnestness. "You ought to be in the building business," he said. "You'd—"

His friend laughed. "I wouldn't be half as valuable as I am in my own line," he said. "All I've given you today is an outsider's viewpoint—you'd probably do as much or more for me if you'd dropped into my office!"

"I doubt it," said Jim, "but I'll concede the point."

"I could have told you the whole secret in one sentence, Jim," the sales manager remarked. "I could have said: 'You've got to do some selling in your new market, and extra service is part of the selling you've got to do.'"

"I wouldn't have understood," admitted Jim.

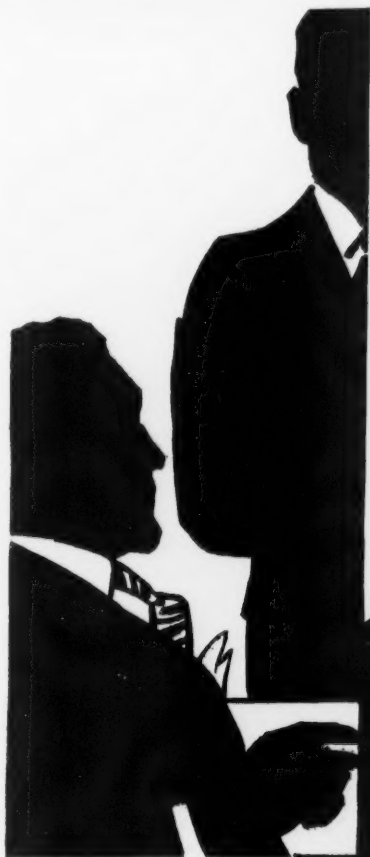
The sales manager had his foot on the car step. "That's why," he shouted above the train's roar. "That's why I did a little sales work on you!"

License Laws for Contractors

(Continued from page 42)

\$5 annually. The fees received under the Act are to be deposited in a Building Contractors License Fund, which is automatically created on the passage of the Act, and this fund is to be kept intact for the sole purpose of carrying out the provisions of the new Law.

(Continued to page 86)



"A little more money for pipe when you build or repair, can mean a big saving in maintenance costs if you put Reading GPWI* Pipe where you need the complete protection."

*GPWI—Genuine Puddled Wrought Iron

READING
IRON
COMPANY

PHILADELPHIA

For help in picking the right pipe for the right place, write

SCIENCE AND INVENTION HAVE NEVER FOUND A SATISFACTORY SUBSTITUTE FOR GENUINE PUDDLED WROUGHT IRON

"I SAY the finest roof that can be bought for the money is

EDWARDS LOXSEAM ROOFING

"TAILOR-MADE AND ABSOLUTELY WATER-TIGHT"



The quotations above are from a letter to an Oklahoma contractor from one of his customers. They tell the story of LOXSEAM from the owner's standpoint.

LOXSEAM is a money-maker for the general contractor. Sheets interlock with full length, water-tight seal as fast as you can nail and lock them together. The harder the wind, the tighter they hold.

Write for LOXSEAM Literature and General Roofing Catalog 85.

THE EDWARDS MANUFACTURING CO.
542-562 Eggleston Ave. Cincinnati, Ohio



CONCEALED HEATING HELPS TO SELL YOUR HOMES

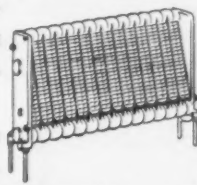
Old homes are going modern—new homes must be ultra-modern to stay in the running. Concealed Heating is proving itself a real help in closing the sale . . . is one sure way of making the prospect feel that the home is up to the minute.

AERO CAST IRON CONVECTORS

THE LIFETIME HEATING UNITS

To keep the home and the owner sold, be sure the heating units are most modern. There's a sure and simple way—install "Aero." Aero Convectors are made of cast iron, the lifetime metal with service records running back over a century. Proven in service in hundreds of installations, large and small, all over the country, National Aero Convectors are scientifically right, give the dependable, continuous service that experienced users want.

Various types of standard enclosures are available for use with Aero Convectors. Popular styles include (left) Removable metal front, fully recessed; (center) Removable metal front,



partly recessed; (right) Free-standing. Fronts only, and Plaster Front enclosures, are also available.

And don't forget . . . National Radiator also makes a complete line of quality heating equipment, for every type of structure.

NATIONAL RADIATOR CORPORATION

GENERAL OFFICES: JOHNSTOWN, PA.
BRANCH OFFICES IN PRINCIPAL CITIES

(Write your name and address below . . . tear out and mail to National Radiator Corporation, Johnstown, Pa.)

Please send me full information on— (231)

- ☐ Aero Convectors ☐ National Cast Iron Boilers
☐ Aero Radiators ☐ National Premier Steel Boilers

It's a JAEGER



Recognized biggest value.
Fast 3 1/2 S Trailers.
Power Load Tilters 3 1/2, 7, 10S. Non-Tilt 7S to 56S sizes.



FAST 10S NON-TILT

GET OUR LOW PRICES

THE JAEGER MACHINE COMPANY
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MAKE BIG MONEY

There's lots of work for you surfacing floors by the American Electric Method. Income is practically unlimited. Let the coming Spring rush get you started into something for yourself. It's easy with an



AMERICAN FLOOR SANDER

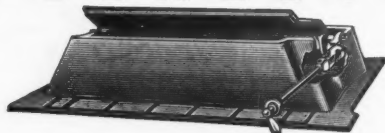
No large capital or experience required. Write today for complete information sent without obligation.

THE AMERICAN FLOOR SURFACING MACHINE COMPANY

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Toledo, Ohio

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DOMES DAMPERS

OTHER PEERLESS PRODUCTS

Fireplace Fixtures
—Ash Dumps—Coal
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Hearth Fire Gas
Heaters.

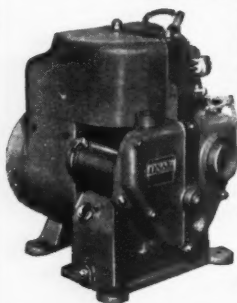
When modernizing or building a new home, include a fireplace in your plans. Be sure of perfect operation by installing the Peerless Dome Dampers. Built of heavy stove plate cast iron they will last a lifetime. Three models to choose from. Rotary control—Poker control—Chain control. All standard sizes.
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COMPLETE ELECTRIC PLANTS

For those who must provide their own electricity, ONAN ALTERNATING CURRENT ELECTRIC PLANTS furnish the same current as supplied by power companies—110 volt, 60 cycle, A.C.

SIZES 350 to 50,000 WATTS



Operate all A.C. Appliances, Water Pump, Washing Machine, Radio. No battery except to start the engine. As easy to install as an outboard motor. Camp and Cottage Models as low as \$110.

Write for Details

Describe the job you have and let us suggest a Model. All available from stock.

Territory available for dealers.

D. W. ONAN & SONS

815 Royalston Ave. Minneapolis, Minn.

License Laws for Contractors

(Continued from page 84)

State License Laws, in the writer's opinion, are practical and timely legislation, especially by reason of the set up of the National Housing Act, whereby designs, plans, specifications, materials, and workmanship are subject to approval by the Federal Housing Administrator and his staff of valuers, architects and others before a loan can be approved for Government Insurance.

This important law will be widespread in its accruing benefits. It should create a new confidence in and demand for homes, causing the public to become conscious that the entire fabrication of a building under the regulations of the law represents the use of approved materials, skill in assembly, artisanship in performance, strict regard of plans and specifications, careful regard of the Building Laws of the State, a meticulous record keeping of receipts and disbursements, and many other items entering into the business relationship between the contractor and the owner. This should create a new confidence on the part of the public on a par with that confidence now shown in the purchase of completely assembled units, such as automobiles, refrigerators, washing machines, etc.

With a careful policing of this Act, the place and importance of the builder in his community should be very materially raised by reason of the required skill and craftsmanship which should put him on a parity with other professions now operated under license regulations. Furthermore, the "New Deal" in building should make the builder a better student of his business; he will be compelled to give new thought to design, to be an active student of costs, and to be on the alert for new products and new methods, by the use of which his costs may be lowered; he will make of himself a creative salesman with a new confidence in himself and his profession because he will now be endowed with the realization that he is no longer subject to the wiles of the "Jerry Builder," the unscrupulous hatchet and saw artist.

It has been somewhat the thought of the builders responsible for the new legislation that, by reason of the prescribed qualifications and regulations, the builder will be put in a position to seek preferential buying privileges from suppliers of building materials. It is the author's thought in this connection that the various trade associations will welcome the new law because it will afford them the opportunity of putting before their membership a much desired list of qualified contractors. These qualified contractors can help the material men and dealers to bring stability to the market; it will enable the manufacturer and supplier of building materials to check the substitution of materials, products and items other than those specified; require careful accounting methods; check the diversion of funds on materials received for a particular job, because of the punishment clause in the Act, and with a new appreciation of the building industry on the part of the public, a greater volume should be expected; and it takes volume to reduce costs.

The contractors should now be able to organize within themselves a personnel able to sell to the consumer through a systematic and efficient program of builder merchandising, armed with a License Law; they should be able to affiliate with the live material dealers operating creative selling campaigns.

The author will report in a later issue what disposal has been made of this proposed License Law by the State Legislature of Ohio. This bill is now known as House Bill 171.

Marshtile MEANS
MORE JOBS FOR YOU



THE lustrous beauty of tiled walls at a fraction of the cost for material and installation... that's sales-making **MARSHTILE**, the sanitary, long-lived, easily-cleaned wall finish in large-sized, burnished sheets. **MARSHTILE** can be speedily installed over old walls, using ordinary wood-working tools. Send for descriptive folder with full details. Write to the exclusive manufacturers of **MARSHTILE**, **MARSH WALL TILE COMPANY**, Dover, Ohio.

MARSHTILE

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DOUBLE STRENGTH
OF TIMBER JOINTS—
ELIMINATE HEAVY
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INCREASE THE STRENGTH OF YOUR ROOF TRUSSES, SUPPORTS, BRACING, FALSEWORK, ETC.—CUT COSTS—SAVE ON MATERIAL, LABOR, AND TIME—USE **TECO CONNECTORS**. EASY TO INSTALL—WRITE **TIMBER ENGINEERING CO.** 1337 CONNECTICUT AVE. WASHINGTON, D. C.




ACCURATE
METAL WEATHER STRIPPING



"ACCURATE" strips have recognized reputation and value. When you install "ACCURATE" strips you know you are backed by thirty years of progress and continuous improvements. "ACCURATE" strips can be guaranteed for the life of windows and doors; are non-rustable and cost no more than you would pay for cheaper grades. "ACCURATE" strip is supplied in the highest quality only for every opening. Customer's satisfaction cannot be gained by using inferior materials.

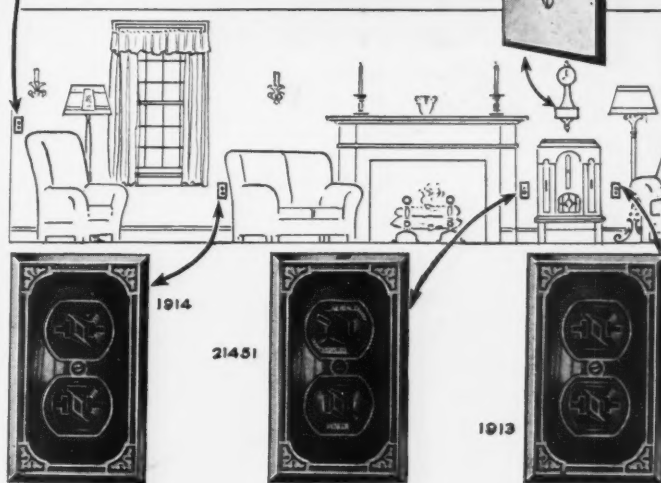
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Accurate Metal Weather Strip Co.
Box 113, 216 East 26th Street, New York



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more
convenient living



Dual-Control Switch No. TL-11 and 2-Circuit Receptacle No. 1914 provide one circuit for wall brackets and central unit; another for floor lamps and table lamps. Radio Outlet No. 21451 provides aerial, ground and power outlets with all wiring concealed. Electric Clock Hanger Outlet No. 7707 provides mechanical support for clock and electrical connection. Duplex Convenience Outlet No. 1913 provides for plugging in portable lamps or any electrical appliance. Mail Coupon for full information on any or all of the above numbers.

THE ARROW-HART & HEGEMAN ELECTRIC CO.
HARTFORD, CONNECTICUT, U. S. A.

COUPON: To Arrow-Hart & Hegeman Electric Co., Hartford, Conn.
SEND ME illustrated data-sheets on the following numbers:

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My Electrical Contractor is

Selected List of Manufacturers' Literature

For the Service of Builders, Contractors, Architects and Dealers

THE publications listed on these pages may be obtained without charge either by using the coupon, listing the numbers of the catalogs desired and mailing to AMERICAN BUILDER, 105 West Adams Street, Chicago, or by applying on your business stationery to the manufacturers direct, in which case kindly mention this publication. Either the titles or the numbers may be used in ordering. This list is an editorial feature for convenience of our readers.

MODERNIZING SUGGESTIONS

WEYERHAEUSER SALES CO., First National Bank Bldg., St. Paul, Minn.

1193—**Improved Lumber**—"Improved Lumber for House Construction," a 24-page illustrated brochure on Weyerhaeuser 4-Square lumber (ready to use), showing how waste is reduced and savings made.

RED CEDAR SHINGLE BUREAU, Seattle, Wash.

1194—**Re-roofing**—"Over-Roofing with Red Cedar Shingles," a leaflet showing the 6 steps in producing a good re-roofing job with new shingles over old.

JOHNS-MANVILLE CORP., 22 E. 40th St., New York City

1195—**Home Improvements**—"New 1935 Edition, 101 Practical Suggestions for Home Improvements"; this practical manual revised and enlarged to 26 pages is fully illustrated, suggesting many uses for J-M materials from basement to roof.

THE RUBEROID CO., New York City

1196—**Modernization**—"The Home Modernizing News" is a rotogravure newspaper in pictorial style showing many jobs before and after remodeling. Space available for dealer's imprint.

1197—**For Dealers**—"7 Keys to Open the Way," a big sales portfolio for retailers presenting the complete Ruberoid campaign by which dealers can get their share of the home modernization market created by the National Housing Act.

MASON 2" BRICK VENEER CO., 3255 Goldner St., Detroit, Mich.

1198—**Brick Veneer**—"Your Home, Its Appearance Before and After," an illustrated booklet showing frame and stucco houses before and after applying the 2" brick veneer. How to apply the brick veneer utilizing the new Mason Patented Beam Foundation.

THE FORMICA INSULATION CO., 4613 Spring Grove Ave., Cincinnati, Ohio

1199—**Commercial Remodeling**—"Formica for Wall Covering, Window Stools, Cabinet Tops, Basing, Store Front Bulkheads and Many Other Building and Architectural Uses," 8 pages of details and illustrated specifications.

CHASE BRASS & COPPER CO., Inc., Waterbury, Conn.

1200—**Lighting Fixtures**—"For Permanence and Beauty in the Home," 28 pages of beautiful electric light fixtures in the favorite styles of today. Illustrations both in black and white photographs and in full color.

THE YOUNGSTOWN PRESSED STEEL CO., Warren, Ohio

1201—**Wall Tile**—"Modernize Your Kitchen and Bathroom with Veos" is a folder in color demonstrating this interesting porcelain enamel metal tile and how it is used.

THE MODERNIZING CO., Builders Exchange Bldg., Cleveland, Ohio

1202—**Brik-Lok Veneer**—"Every Frame House Is a Prospect for Brik-Lok Veneer," a broadside presenting a new patented method of applying thin, grooved brick unit held with steel but laid in mortar, to resurface and restyle old frame buildings.

BUILDING MATERIALS

PITTSBURGH PLATE GLASS CO., 2292 Grant Bldg., Pittsburgh, Pa.

1203—**Store Front Construction**—"Details of Pittco Store Front Metal," a portfolio of detail drawings, many of them full size, showing the latest ideas in store front design and construction.

FILSHIE LEAD HEAD NAIL CO., Inc., 5801 S. State St., Chicago, Ill.

1204—**Non-Rusting Nails**—"A Good Hit—a New Nail," an illustrated leaflet showing how Led Hed nails make better metal roofs and corrugated siding.

NATIONAL MANUFACTURING CO., Sterling, Ill.

1205—**Builders' Hardware**—"National Builders' Hardware, Catalog 23," a new catalog of 208 pages thoroughly illustrated and indexed for quick and handy reference.

EARLE HARDWARE MANUFACTURING CO., Reading, Pa.

1206—**Period Hardware**—"Earle Period Hardware," a 28-page catalog illustrated in artistic way to present these hand wrought period designs.

LOUISVILLE CEMENT CO., Louisville, Ky.

1207—**Brixment**—"Facts about Brixment," a 20-page handbook telling how to prepare and use mortar to prevent efflorescence, faded colors, leakage, etc.

BETHLEHEM STEEL CO., Bethlehem, Pa.

1208—**Steel Beams and Joists**—"Bethlehem Light Sections," a 20-page booklet illustrated with photographs and working drawings showing many uses for Bethlehem structural steel in light weight sections.

BRIDGEPORT BRASS CO., Bridgeport, Conn.

1209—**Brass Pipe**—"Water Pipe Sizes for Plumbing Fixtures, Branches, Risers and Mains." A helpful treatise of 24 pages including many tables, facts and rules concerning brass and copper pipe.

THE ARROW-HART & HEGEMAN ELECTRIC CO., Hartford, Conn.

1210—**Wiring Devices**—"H & H Wiring Devices." Catalog "V" is a portfolio of 70 pages presenting many types of outlets, switches, sockets, etc.

GENERAL ELECTRIC CO., Merchandise Dept., Bridgeport, Conn.

1213—**Wiring Devices**—"G-E Wiring Device Catalog," a 60-page handbook fully illustrated and indexed, presenting the complete G-E line of electric wiring devices.

CORNING-STEUBEN, 748 Fifth Ave., New York City

1214—**Architectural Glass**—A 12-page illustrated catalog showing many modern uses for architectural glass in restyling buildings and for new construction.

GLUKOTE CO., 1225 University Ave., St. Paul, Minn.

1215—**Stucco Finish**—"Stuk-Rok Paint and Cement," a specification folder featuring this waterproofing, permanent and decorative paint for all mineral surfaces, such as stucco, Kelastone, Cragstone, concrete, brick, etc.

PORTLAND CEMENT ASSN., 33 W. Grand Ave., Chicago, Ill.

1216—**Concrete for Coal Mine**—"Less Cost Per Ton with Concrete" is a new 32-page illustrated booklet featuring the use of concrete in the coal mining industry for lining mine shafts and constructing mine surface structures; of interest to contractors and engineers in mining districts.

UNIVERSAL ATLAS CEMENT CO., Chicago, Ill.

1217—**Stucco Practice**—"Houses of Stucco," a standard manual of 44 pages on stucco construction, illustrating numer-

ous designs of stucco houses. Color inserts show decorative effects using white portland cement.

LUMBER AND INSULATION

BRADLEY LUMBER COMPANY OF ARKANSAS, Warren, Ark.

1218—**Block Design Floors**—"Architects' Reference Bulletin A-3." Specifications for applying "Corner-Lock" block design floors of Oak and Beech are presented in a new circular illustrated in photographs in natural colors, and by means of construction drawings.

WEYERHAEUSER SALES Co., St. Paul, Minn.

1219—**End-Matched Lumber**—"Endless Lumber" and what it means in saving to carpenters and builders and in better construction for contractors, architects and building owners is presented in a new 8-page brochure.

SILVERCOTE PRODUCTS, INC., 161 E. Erie St., Chicago, Ill.

1220—**Aluminum Foil Insulation**—"General Information, Technical Data, Specifications" for the use of Silvercote Insulation Fabric, Coreboard and Insulation Board are presented in a 14-page manual illustrated with construction drawings.

THE INSULITE Co., Minneapolis, Minn.

1221—**Insulation on the Farm**—"Building Greater Farm Profits with Insulite" is a 38-page illustrated handbook of farm buildings which should be insulated; construction drawings show use of Insulite board.

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THE STANDARD LIME & STONE Co., Baltimore, Md.

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UNITED STATES MINERAL WOOL Co., 280 Madison Ave., New York City

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WYO-LITE INSULATING PRODUCTS, Div. of The Wyodak Chemical Co., 4600 E. 71st St., Cleveland, Ohio

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OSMOSE CORPORATION OF AMERICA, Buffalo, N.Y.

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CARRIER Co., Newark, N.J.

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STANDARD GAS EQUIPMENT CORP., 18 E. 41st St., New York City

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AMERICAN TECHNICAL SOCIETY, Drexel Ave. at 58th St., Chicago, Ill.

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GENERAL ELECTRIC Co., Plastics Dept., West Lynn, Mass.

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RANSOME CONCRETE MACHINERY Co., Dunellen, N.J.

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(March, 1935)

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Forms for the April Number of the American Builder and Building Age will close promptly on March 20. New copy, changes, order for omissions of advertisements must reach our business office 105 W. Adams St., Chicago, not later than the above date. If new copy is not received by the 20th of the month preceding date of publication the publishers reserve the right to repeat last advertisement on all unexpired contracts.

AMERICAN BUILDER AND BUILDING AGE.